Acano solution

Acano Client Troubleshooter

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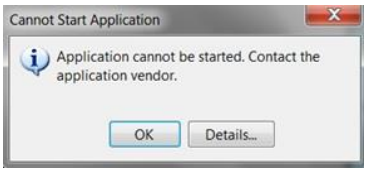
1 Problems Installing an Acano Client

1.1 ClickOnce Installer for PC Client Not Working

The Acano PC Client supports two modes of install: an http: self-install link using Microsoft's "ClickOnce" technology, and an MSI installer (see the next section). ClickOnce is the recommended method. If you are having issues getting the ClickOnce installer on to your PC, find the appropriate issue in this section and follow the suggested steps.

In addition, if you try to access a meeting as a guest using a browser on a PC, it will try to download and install the ClickOnce PC Client, if one has been configured in your Acano solution. If you are having issues getting the ClickOnce installer on to your PC, find the appropriate issue in the section and follow the suggested steps.

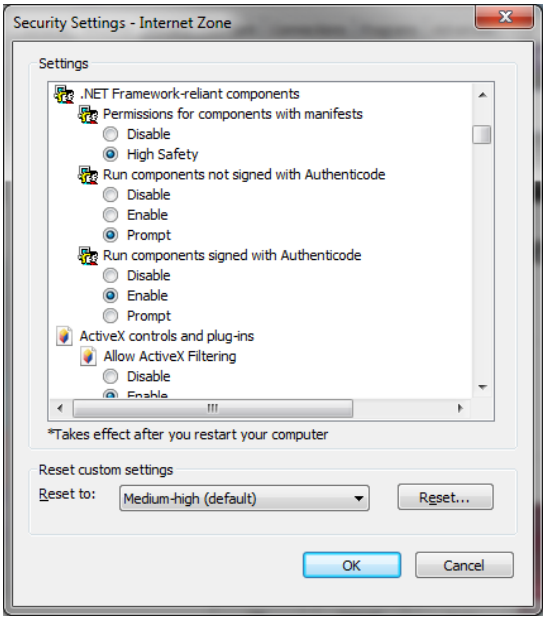
1. ClickOnce application cannot be found
   a. Check the ClickOnce download URL
      i. SSH to the MMP and type the command `webbridge` to display the ClickOnce URL
      ii. Copy and paste the ClickOnce URL into the browser's address bar and retry the download.
      iii. If the download fails again, make sure that the configured URL is correct (matches the path to the installer).
2. ClickOnce application starts downloading but doesn't complete
   a. Check that the ClickOnce installer is deployed correctly. (ClickOnce applications can be deployed to a computer from a web location, a network share, or even from a file location such as a CD – see the Microsoft Developer Network for details.)
   b. If you get an error such as:



   check that it is not a browser security issue. This is a common ClickOnce application (http://en.wikipedia.org/wiki/ClickOnce) issue and nothing specific to our application.

   Follow these steps to add our site to the Trusted Sites list, or enable the following setting for the Internet Zone in IE:

      i. In IE go to Tools > Internet Options.
      ii. Go to Security.
      iii. Select Internet Zone and click **Custom Level**.
      iv. Within .NET Framework-reliant Components, set Run Components Signed with Authenticode to Enable (or Prompt). If Prompt is selected our signed application will be verified when the user installs it.



v. Click **Save**.

Note: We support IE 9 and above.

3. Installer has downloaded but doesn't run
   a. Check that your web browser type and version works with ClickOnce.

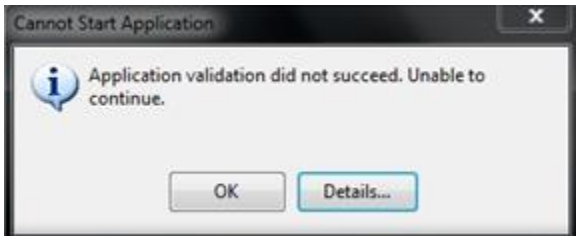
      Prior to .NET Framework 3.5 with Service Pack 1, ClickOnce worked only with Internet Explorer. Microsoft .NET Framework 3.5 with Service Pack 1 includes a Firefox extension called .NET Framework Assistant that enables ClickOnce support in Firefox 3 and later.

   b. Check that the operating system that you are running is supported by Acano
      i. Check the Operating System Support section in Acano solution Client Support FAQs at www.acano.com/help/.
   c. Try the Acano ClickOnce download URL
      i. Go to www.acano.com/help/ and try the ClickOnce download URL.
      ii. If the Acano ClickOnce URL works, check your ClickOnce deployment and make sure it is not a corrupted file or is not crashing while downloading.
   d. Check the specification of your PC. The PC Client requires the following as a minimum:
      - Dual Core processor
      - DirectX 9 support (hardware accelerated Direct3D 9 support)
      - SSE-2 capable processor (We have tested on AMD processors, and a variety of Intel processors.)
      - Camera/speakers/microphone of a standard that matches your quality requirements

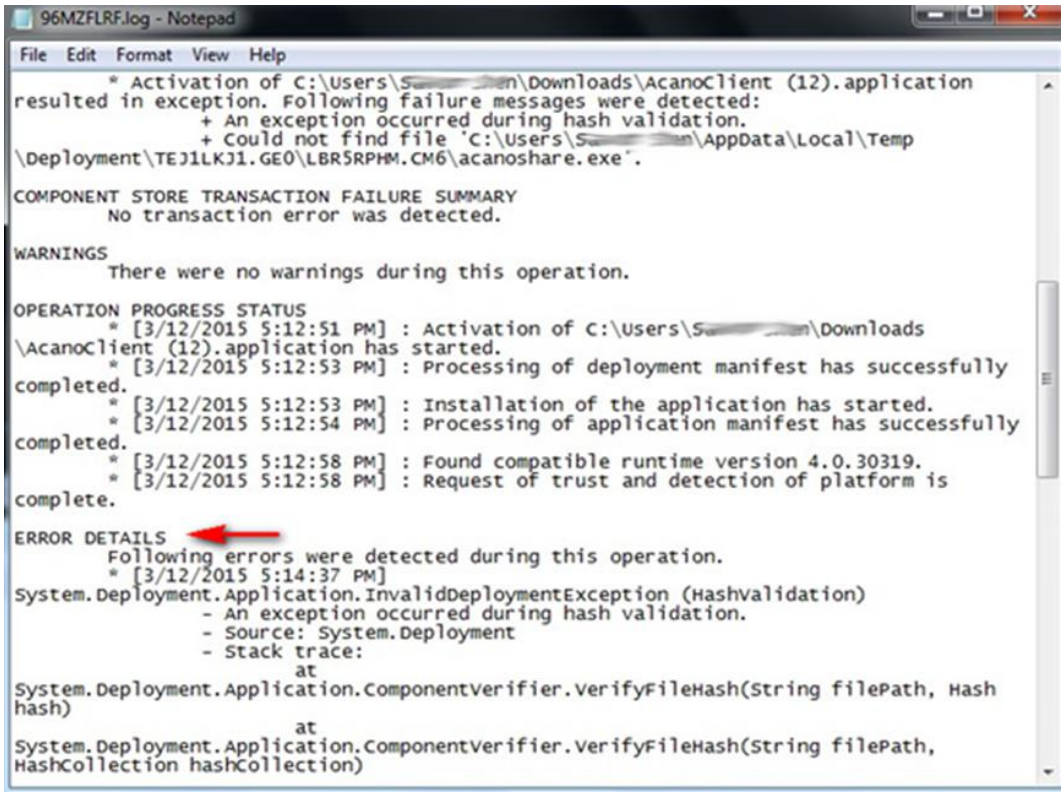
      In addition it is advisable to upgrade to the latest drivers.

4. Installation failure

   Sometimes, you may get the error below during installation.



   Click the “Details” button and find the “ERROR DETAILS”.


96MZFLRF.log - Notepad
File Edit Format View Help
* Activation of C:\Users\S[redacted]n\Downloads\AcanoClient (12).application resulted in exception. Following failure messages were detected:
+ An exception occurred during hash validation.
+ Could not find file 'C:\Users\S[redacted]n\AppData\Local\Temp\Deployment\TEJ1LKJ1.GE0\LBR5RPHM.CM6\acanoshare.exe'.
COMPONENT STORE TRANSACTION FAILURE SUMMARY
No transaction error was detected.
WARNINGS
There were no warnings during this operation.
OPERATION PROGRESS STATUS
* [3/12/2015 5:12:51 PM] : Activation of C:\Users\S[redacted]n\Downloads\AcanoClient (12).application has started.
* [3/12/2015 5:12:53 PM] : Processing of deployment manifest has successfully completed.
* [3/12/2015 5:12:53 PM] : Installation of the application has started.
* [3/12/2015 5:12:54 PM] : Processing of application manifest has successfully completed.
* [3/12/2015 5:12:58 PM] : Found compatible runtime version 4.0.30319.
* [3/12/2015 5:12:58 PM] : Request of trust and detection of platform is complete.
ERROR DETAILS
Following errors were detected during this operation.
* [3/12/2015 5:14:37 PM]
System.Deployment.Application.InvalidDeploymentException (HashValidation)
- An exception occurred during hash validation.
- Source: System.Deployment
- Stack trace:
at System.Deployment.Application.ComponentVerifier.VerifyFileHash(String filePath, Hash hash)
at System.Deployment.Application.ComponentVerifier.VerifyFileHash(String filePath, HashCollection hashCollection)

   You may find the solution by searching for the error message(s) on Google or else send the error messages to Acano support.

Note: sometimes, an installation failure can be fixed by simply deleting the folder under C:\Users\<username>\AppData\Local\Apps\2.0

Note: If the ClickOnce installer still does not work, send an email to support@acano.com with the following information:

- Software version of Acano solution
- Type of Acano Server or virtualized deployment
- Type and version of your PC operating system and your browser
- Output of the MMP command `webbridge`
- Live.json file (see Appendix A)
- MMP log (see Appendix A)

1.2 PC Client msi Installer Not Working

The Acano PC Client supports two modes of install: an http: self-install link using Microsoft's "ClickOnce" technology, and an MSI installer. ClickOnce is the recommended method. If you are having issues getting the .msi installer on to your PC, find the appropriate issue in this section and follow the suggested steps.

In addition, if you try to access a meeting as a guest using a browser on a PC, and it tries to download and install the msi PC Client installer but you experience issues, find the appropriate issue in this section and follow the suggested steps.

1. .msi file cannot be found
   a. Check the msi download URL

      SSH to the MMP and type the command `webbridge` to display the msi download URL

      Copy and paste the msi download URL into the browser's address bar and retry the download.

      If the download fails again, make sure that the configured URL is correct (matches the path to the installer) and that the msi is deployed correctly.
2. .msi installer is downloaded but doesn't run
   a. Check that your operating system is supported by Acano

      Check the Operating System Support section in Acano solution Client Support FAQs at www.acano.com/help/.

   b. Try the Acano msi file

      Get the msi file from Acano support (support@acano.com) and see whether the msi file can successfully install the Acano client. If it does, check your msi file and messages in any log files to try and pinpoint the issue.

Note: If the msi installer still does not work, send an email to support@acano.com with the following information:

- Software version of Acano solution
- Type of Acano Server or virtualized deployment
- Type and version of your PC operating system and your browser
- Output of the MMP command `webbridge`
- Live.json file (see Appendix A)
- MMP log (see Appendix A)

1.3 Mac dmg Installer Not Working

If you try to access a meeting as a guest using a browser on a Mac, and it tries to download and install the Mac dmg installer but you experience issues, find the appropriate issue in this section and follow the suggested steps.

1. dmg file cannot be found
   a. Check the dmg download URL

      SSH to the MMP and type the command `webbridge` to display the dmg download URL.

      Copy and paste the dmg download URL into the browser's address bar and retry the download.

      If the download fails again, make sure that the configured URL is correct (matches the path to the installer) and that the dmg is deployed correctly.
2. dmg installer downloads but is not running
   a. Check that your operating system is supported by Acano

      Check the Operating System Support section in Acano solution Client Support FAQs at www.acano.com/help/.

   b. Try the Acano dmg file

      Get the dmg file www.acano.com/help/ and see whether it can successfully install the Acano client. If it does, check your dmg file and messages in any log files to try and pinpoint the issue.

Note: If the dmg installer still does not work, send an email to support@acano.com with the following information:

- Software version of Acano solution
- Type of Acano Server or virtualized deployment
- Type and version of your Mac operating system and your browser
- Output of the MMP command `webbridge`
- Live.json file (see Appendix A)
- MMP log (see Appendix A)

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2 Issues Logging into an Acano Client

If your users are experiencing issues when logging into an Acano client, ask for the error message and follow the suggested steps in that section. If they do not resolve the issue send an email to support@acano.com with the following information:

- Software version of Acano solution
- Type of Acano Server or virtualized deployment
- Type and version of the operating system that your client runs on
- Live.json file
- MMP log (see Appendix A)

2.1 Client Reports “no network” in the Login Dialog

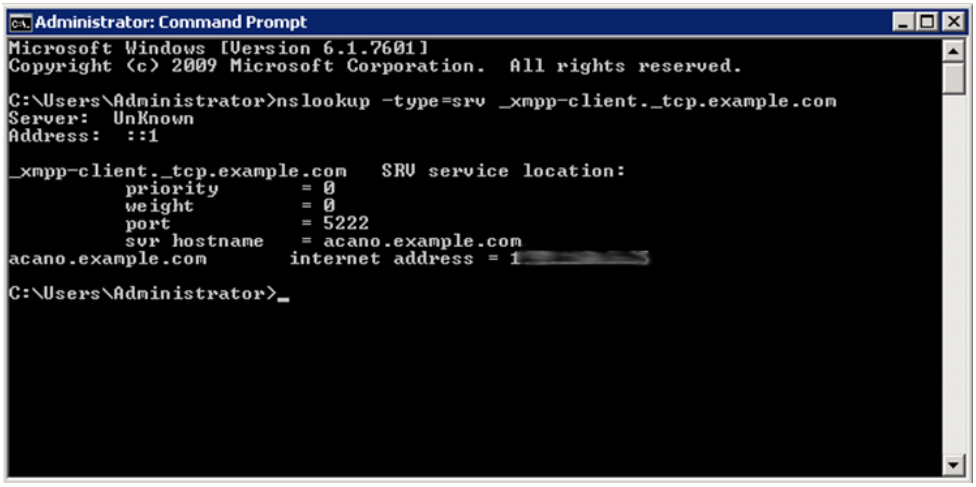
Check the network connection – can the user reach standard web sites such as www.google.com?

2.2 Client Reports “unable to resolve IP address” in the Login Dialog

This message means that the client is unable to resolve a domain to an IP address.

1. Ask the user to look up the domain using dnslookup.

   For example, at the command prompt type your equivalent of
   `nslookup -type=srv _xmpp-client._tcp.example.com`
   to see whether the expected IP address and port are displayed, for example:

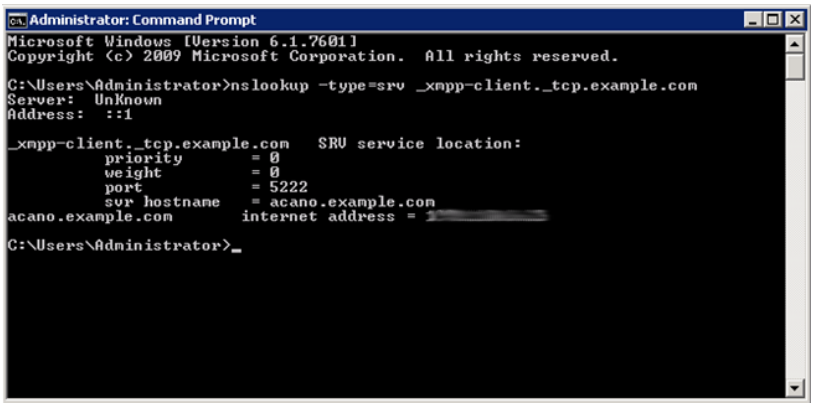


   If there are multiple records, the one with the lowest priority and highest weight is selected first.

2.3 Client Reports “Unable to connect – check your username and try again” in the Login Dialog

1. Check the xmpp-client SRV records and DNS A record.

   Either they are wrongly configured or they are not configured yet. For example, at the command prompt, type your equivalent of
   `nslookup -type=srv _xmpp-client._tcp.example.com`
   to see whether you see the expected IP and port.

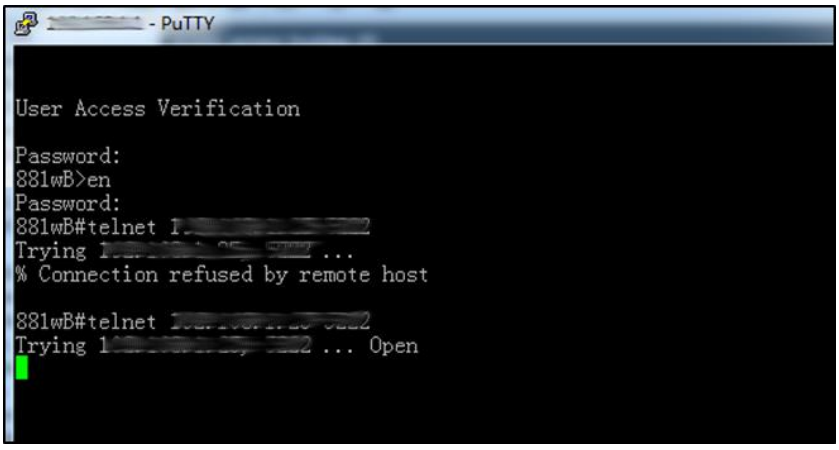


2.4 Client Reports “Unable to connect –try again later” in the Login Dialog

This message means that the domain has resolved to an IP address but the XMPP server does not respond.

1. Check whether the resolved IP address is reachable (that is, is port 5222 to XMPP server blocked).

   At the command prompt, try to telnet port 5222 via puTTy. The following is an example of trying to telnet an Acano server via port 5222 on a cisco router. If you get connection refused, it means the port is blocked either by network or server is not running.



2. Check that the domain part of the login username is the same as the XMPP domain, for example:

   login username: fredsmith@example.com

   xmpp domain: example.com

   SSH to the MMP and type the command `xmpp` to see the XMPP domain. If the login username domain part differs from the XMPP domain, change the login username domain part to match the XMPP domain.

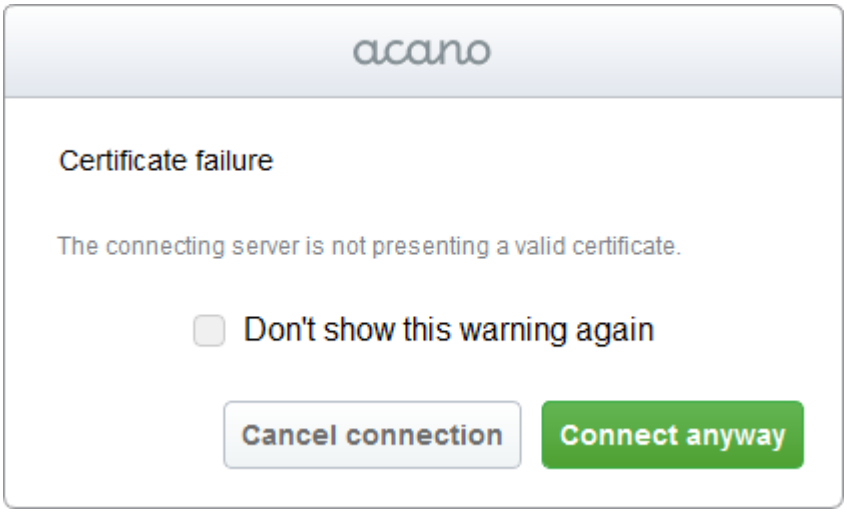
2.5 Client Reports “username or password is incorrect” in the Login Dialog

1. Open the Core server logs and search for the LDAP lookup; has the LDAP account been suspended or is it wrong? Can the user log in to another application using these credentials? Check with your LDAP admin team.

Date	Time	Logging level	Message
2015-04-04	15:54:31.164	Info	no user 'fredsmith@example.com' found for authorisation
2015-04-04	15:54:31.164	Info	unsuccessful login request from fredsmith@example.com

2.6 Client reports Certificate Warning

If when you are trying to sign in, you get this Certificate failure warning:



Please check the XMPP certificate requirement in our Certificate guide, in particular the need to specify:

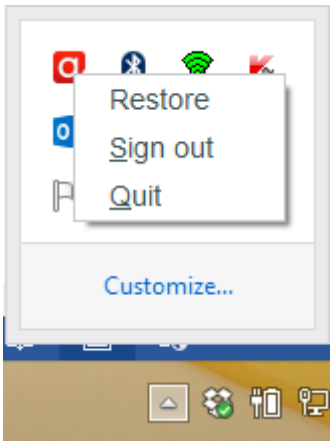
- the DNS record for the XMPP server in the CN field of the certificate,
- the XMPP domain name and the DNS record for the XMPP server in the subjectAltName field.

If you still have this issue, please send Acano support the XMPP certificate and the output from the MMP command “xmpp”.

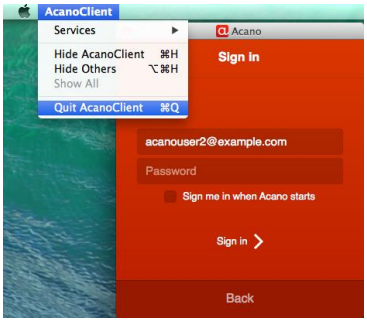
3 Issues logging out on Acano client

3.1 Client hang ups

If the client hangs up, you may need to quit the client application. On a PC, find the Acano icon on the bottom in the right hand bottom corner, right mouse click, and select Quit.



On a MAC, find the AcanoClient icon at the top in the left hand top corner, mouse click, and select Quit AcanoClient.



Locate the client folder, zip all the files in the folder and send the zip file to Acano support.

On a PC, the client folder is at C:\Users\<username>\AppData\Roaming\Acano\client\

On a Mac, the client folder is at /Users/<username>/Library/Caches/com.acano.client/

4 Issues after logging into an Acano client

4.1 Client diagnostic log

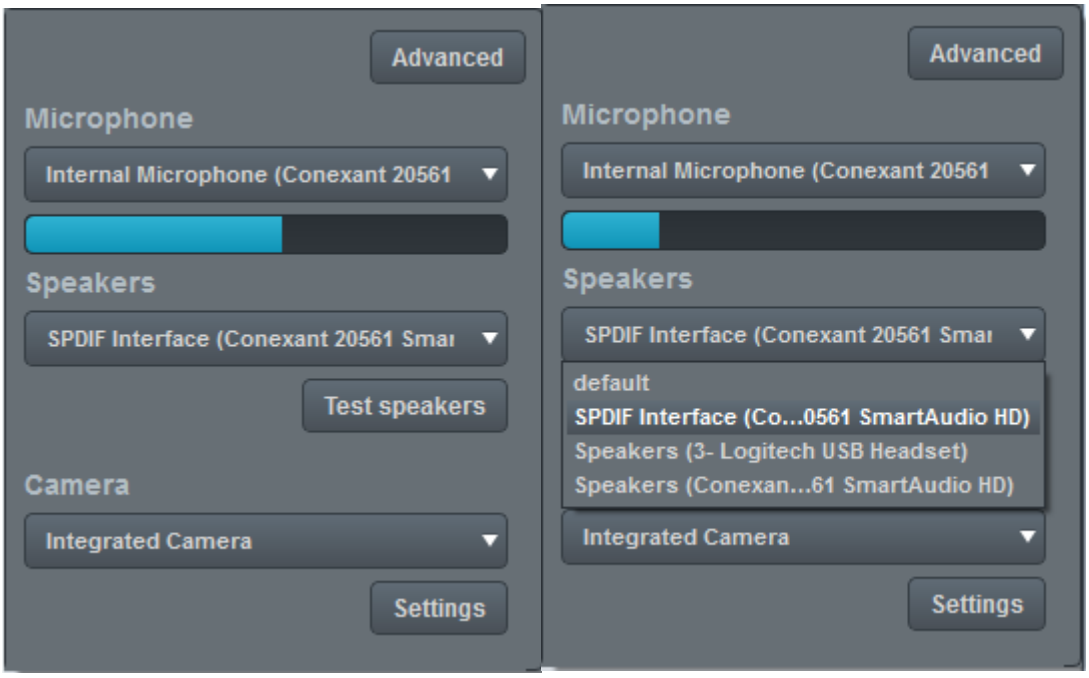
The client diagnostic log is a useful tool to identify the cause of a problem. Refer to “Collecting Diagnostic Information from a client” in Appendix A for information on using the client diagnostic tool.

4.2 Something missing on Acano PC/MAC client

If you see something missing on an Acano client, such as missing coSpaces, a missing button or icon, chat messages lost, or contacts lost, please take a screenshot, and click on the Diagnostics button. Send the screenshot and xmppLog file to support@acano.com.

4.3 MIC/Speaker/Camera devices issue

If you see that any MIC/Speaker/Camera devices are not listed in the drop down list on the Acano client, please take a screenshot and click on the Diagnostics button. Send the screenshot and xmppLog file to support@acano.com.



4.4 Client homing issues

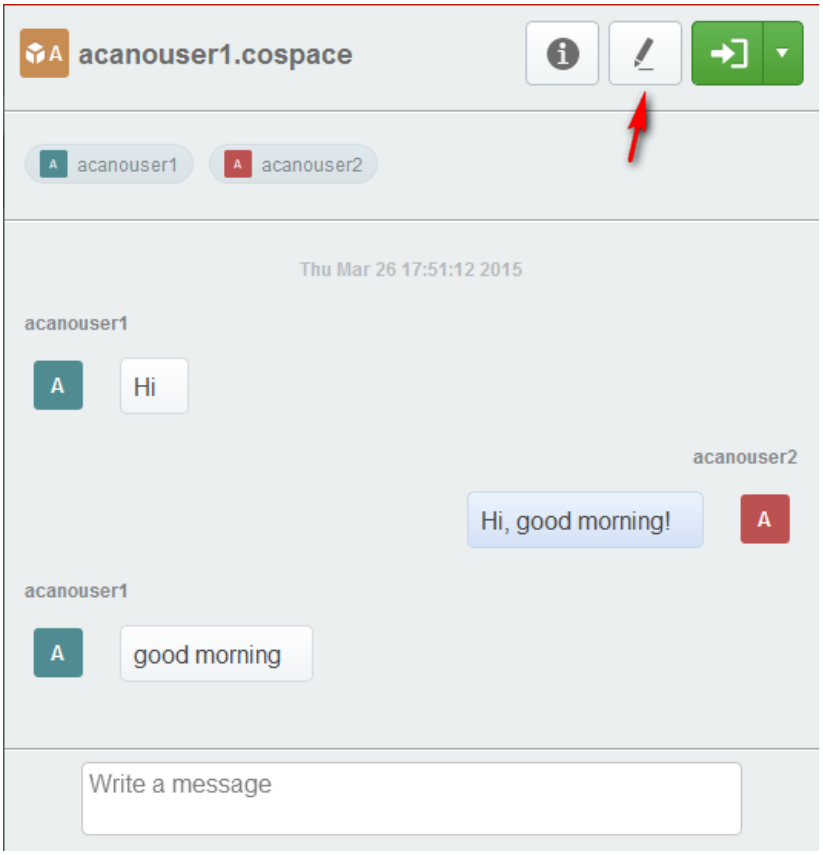
If the deployment of your Acano solution includes a cluster of Call Bridges, you may find a client is hosted by a Call Bridge that is not the closest one to the client. This can introduce latency and impact the quality of the call. To avoid this:

- The user must log out from all Acano clients. Since the homing expiration time varies between different clients and versions, the safest way to remove a homed client will be to log out from all instances for that user, for greater than 2 to 3 hours.
- If the user is using a very old client, it can remain on the server indefinitely (even after logging out). To remove these homed clients, the user must log out, and then you restart the server.

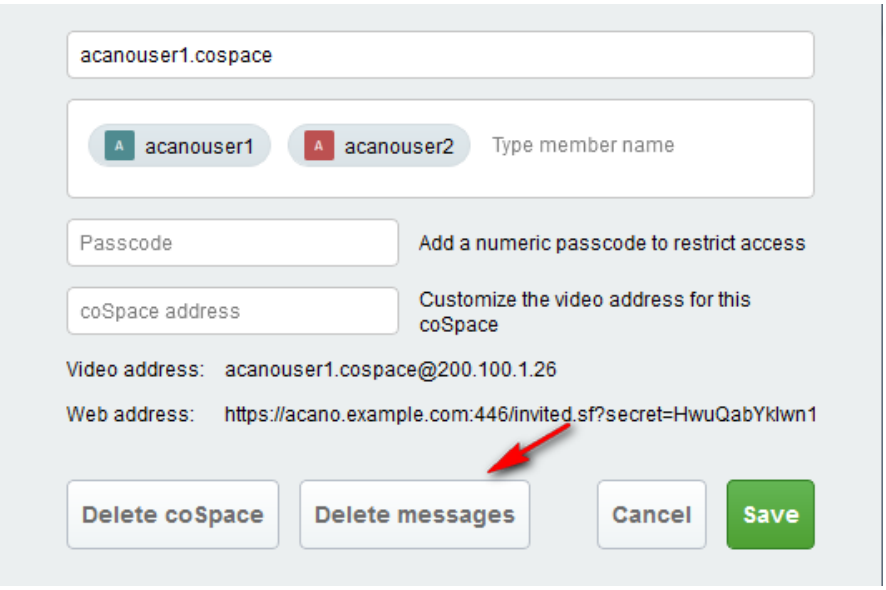
If the issue still cannot be fixed, please ask the user to login, select the **Settings and icon** button and and click on the **Diagnostic** button to create a diagnostic log. Send the xmppLog file to support@acano.com.

4.5 Cannot delete chat messages

This is a feature that needs to be enabled by Admin users. Once it is enabled, select a coSpace and click the edit button.



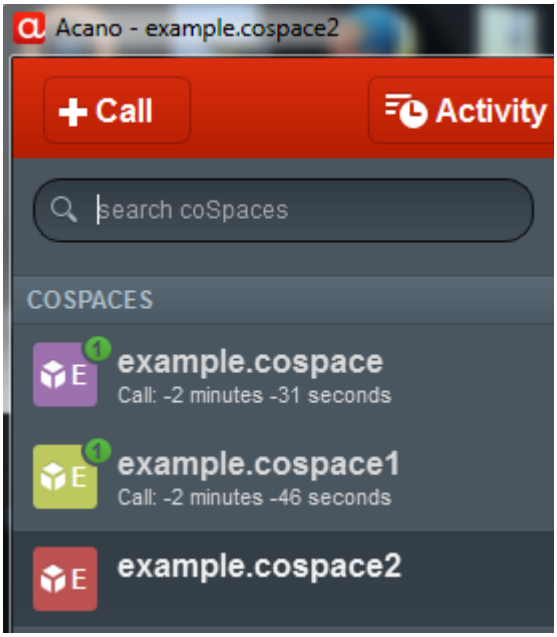
Then click “Delete messages” and Save.


acanouser1.cospace
acanouser1
acanouser2
Type member name
Passcode
Add a numeric passcode to restrict access
coSpace address
Customize the video address for this coSpace
Video address: acanouser1.cospace@200.100.1.26
Web address: https://acano.example.com:446/invited.sf?secret=HwuQabYklwn1
Delete coSpace
Delete messages
Cancel
Save

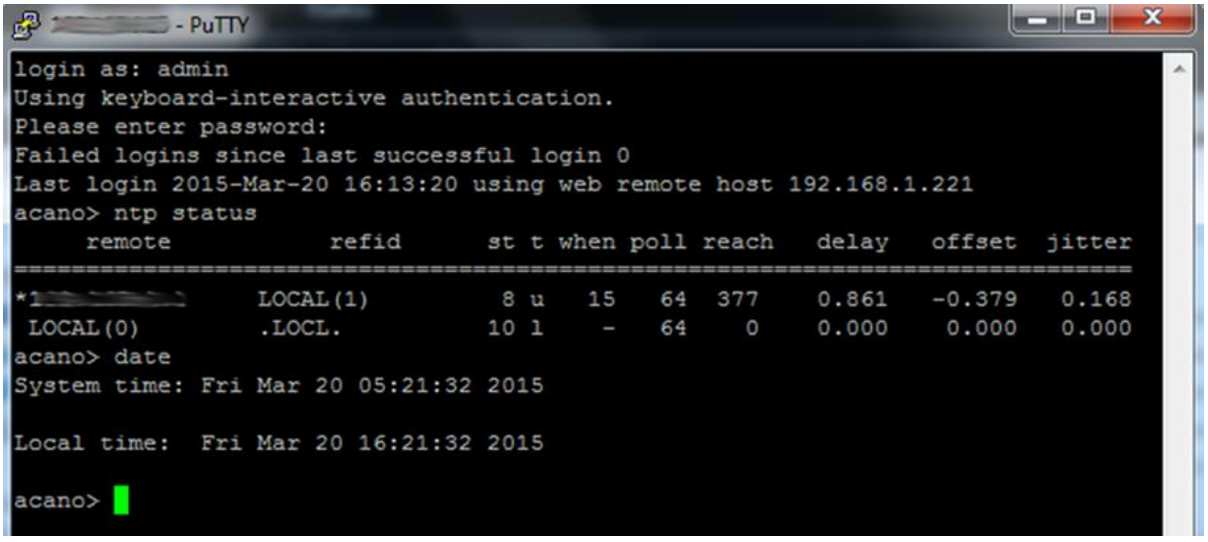
5 Issues in coSpaces on Acano client

5.1 Negative in progress timer in coSpace

If you see something similar to the image below or if the In Progress timer seems inconsistent in any other way, check that you are using NTP to sync the time on your Acano client with the Call Bridge timer.

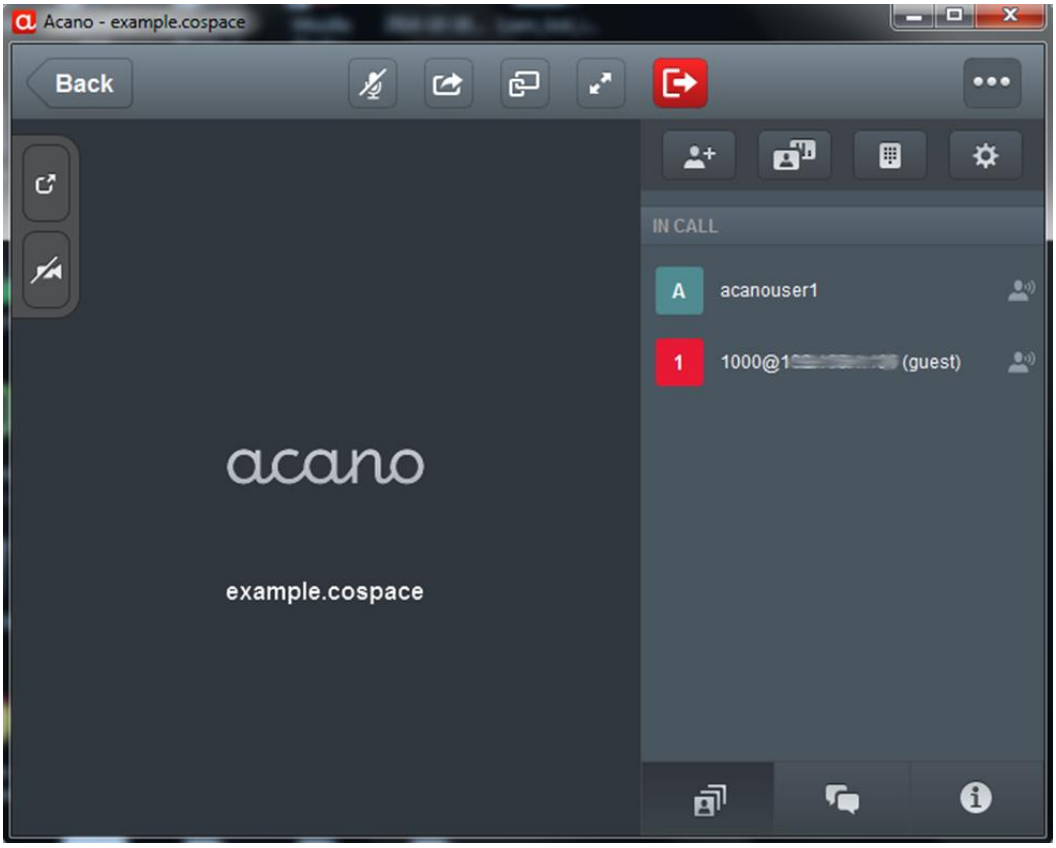


Check the NTP status and time on the Acano server


- PuTTY
login as: admin
Using keyboard-interactive authentication.
Please enter password:
Failed logins since last successful login 0
Last login 2015-Mar-20 16:13:20 using web remote host 192.168.1.221
acano> ntp status
remote refid st t when poll reach delay offset jitter
LOCAL(1) 8 u 15 64 377 0.861 -0.379 0.168
LOCAL(0) .LOCL. 10 l - 64 0 0.000 0.000 0.000
acano> date
System time: Fri Mar 20 05:21:32 2015
Local time: Fri Mar 20 16:21:32 2015
acano>

5.2 Participants not going away

If you are the only participant in the coSpace but you see something similar to the image below, then there is an issue with participant call disconnection. Please take the client diagnostic log and collect the corresponding server side client diagnostic log. Also download the log file on Acano server. Please send all these file to Acano support.



6 Audio Issues

If your users are experiencing issues with sound during a meeting, look for the issue in this section and follow the suggested steps in that section. If they do not resolve the issue send an email to support@acano.com with the following information:

- Software version of Acano solution
- Type of Acano Server or virtualized deployment
- Type and version of the operating system that your client runs on
- State the problem, and attach the diagnostic information from client (see Appendix A)
- Attached the diagnostic information from Acano server (see Appendix A)
- MMP log (see Appendix A)

6.1 Participant Cannot Hear the Other Participant

1. Ask the sending participant to check that:
   a. Their MIC is not muted.
   b. Their MIC device is selected, and ask them to try to change the MIC device at the far end.
   c. There is no other application using the same MIC as the Acano client.
2. If you are using an iPad go to **Settings > Privacy > Microphone** and ensure Acano is set to On. (An iOS 8.0.1 patch has been reported as changing that setting.)
3. Check that the receiving participant's speaker volume is sufficiently high.
4. Check that the receiving participant's speaker is working by asking them to click the **Test speakers** button on the Acano client's **In-call > Settings** panel.
5. Check that the receiving participant's speaker device is selected, and ask them to try to change the speaker.

6.2 Another Participant's Audio is Very Low

1. Ask the sending participant to check that their MIC device is selected, and ask them to try to change the MIC device.
2. Check that the receiving participant's speaker device is selected.
3. Check that the receiving participant's speaker volume is sufficiently high.
4. Check that the Audio boost option is selected in the receiving participant's Acano client **In-call > Advanced** panel.

6.3 Participant is Receiving Corrupted Audio

1. If only one participant is receiving corrupted audio, check that participant's speaker and network connection. If the network connection is poor, the video quality should also be poor.
2. If all the several participants are receiving corrupted audio:

   Change the sending participant's MIC device to test whether it is causing the issue

   Check that the sending participant does not have poor network connection, (in this case, the other participants should receive poor quality video from this participant as well).

6.4 Echo on the Call

1. In a point-to-point call, the participant who cannot hear the echo is probably the one generating it. Check whether their speaker is too close to their MIC.
2. In a multisite call, locate the participant who is generating the echo by muting the MICs one at a time until the echo disappears. Then check whether their speaker is too close to their MIC.
3. Check that the Echo cancellation option is selected on every participant's Acano client **User > Settings > Advanced** panel, Audio section.

6.5 Background Noise

1. When there is background noise in a call, locate the participant who is generating the noise by muting MICs one at a time until the noise disappears.
2. Change this participant's MIC to test whether that is the issue.
3. Ask the participant to move to a quieter room.

7 Video Issues

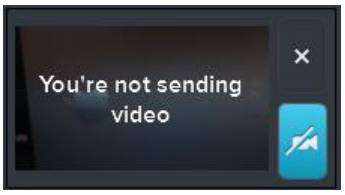
If you users are experiencing issues with video during a meeting, look for the issue in this section and follow the suggested steps in that section. If they do not resolve the issue send an email to support@acano.com with the following information:

- Software version of Acano solution
- Type of Acano Server or virtualized deployment
- Type and version of the operating system that your client runs on
- State the problem, and attach the diagnostic information from client (see Appendix A)
- Attached the diagnostic information from Acano server (see Appendix A)
- MMP log (see Appendix A)

7.1 Participant is Getting No Video

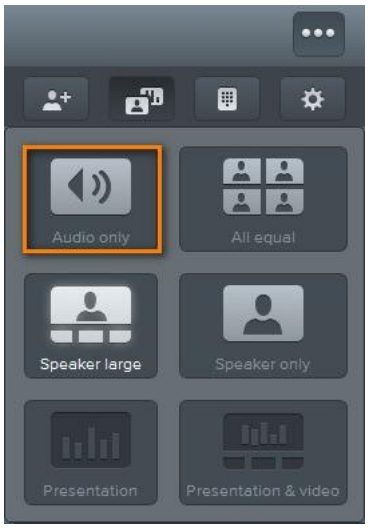
1. Ask the sending participant to check that their video is not muted.

   If they see the screenshot on the right, their camera is muted. When it is unmuted, check whether the receiving participant can receive video.



2. Check on the receiving participant's Acano client's In-call panel (see right).

   If they have selected the layout called "Audio only", ask them to change it to other Layout to see whether they can receive video.



7.2 Video is Low Resolution

1. If the participant with low video resolution is using an Acano client, ask them to go to **Settings > Advanced** and find the Receive Max Bandwidth. Ask them to change it to a higher bandwidth and test the video resolution again.
2. If far end is Acano client ask that participant to go to **Settings > Advanced** and check whether their Transmit max bandwidth is low and adjust it if necessary.
3. If the steps above do not fix the issue, may be the call rate is being down-speeded during the call due to network package loss or latency. Conduct more testing with endpoints at other

locations. Check whether the issue always occurs for a specific location or a specific endpoint.

7.3 Video is Badly Corrupted

1. Check for packet loss due to a network problem. Try to place a call with endpoints at different locations to see whether the issue changes with network path.
2. Check for packet loss due to QoS.
   a. Try to place a call with a low call rate.
   If you are using Acano client, go to **Settings > Advanced** and change to a lower Receive Max Bandwidth. Test again.
3. Check for encode/decode issues. If possible, place a number of calls using different endpoints and the same endpoint running different software versions. If the issue does not occur on all calls it may be related to a specific endpoint and software version.
4. Check the camera sending the video. Ask the far end participant to place a call with another endpoint or camera.

7.4 Layout issues

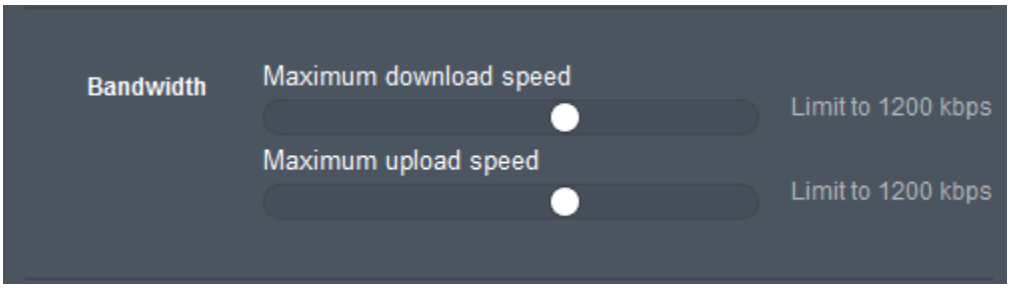
If you see a layout that is not what you have selected, or has an unexpected aspect ratio, it may be due to low network bandwidth causing the call rate to reduce speed. Please try to use wired Ethernet cable and change to a different location. If you still have a problem then obtain the client diagnostic log while in a call, and collect the corresponding server side client diagnostic log. Send these files to Acano support.

7.5 Content sharing/receiving issue

If participants have content sharing issues, such as:

- cannot receive content at start of sharing, or during content sharing,
- content is not clear,
- content streaming gets dropped.

Check the client call bandwidth settings and make sure enough bandwidth is allowed. To check client bandwidth settings, select the **Settings and info** button, then at the bottom of the panel select the **More settings** button, followed by the **Advanced** button. The default bandwidth setting is 1200Kbps.



Also check the network devices to see if there is any packet loss or a lack of bandwidth resources.

Please take the client diagnostic log under the sharing state, or once content gets dropped on the receiving client, and collect the corresponding server side client diagnostic log.

8 Issues with Guest/Signed-in User Features

8.1 Issues with Signed-in User Features

8.1.1 Missing invitation details

For coSpaces that sign-in users are members of, these users can send coSpace details to invite other participants to call into the coSpace. If there are issues. on an Acano client ask the user to select a coSpace and click i; if any details are missing, check the following depending on which piece of information is missing:

1. If the Video URL is missing, sign in to the Web Admin Interface and check the “URI user part” for this coSpace in **Configuration > coSpaces**.
2. If the Phone number is missing, sign in to the Web Admin Interface and check the “IVR numeric ID” for this coSpace at **Configuration > General**.
3. If the Call ID is missing, sign in to the Web Admin Interface and check the “Call ID” for this coSpace at **Configuration > coSpaces**.
4. If the Web link is missing, sign in to the Web Admin Interface and check the “Guest account client URI” for this coSpace at **Configuration > General**.

8.1.2 Cannot remove a participant during a call

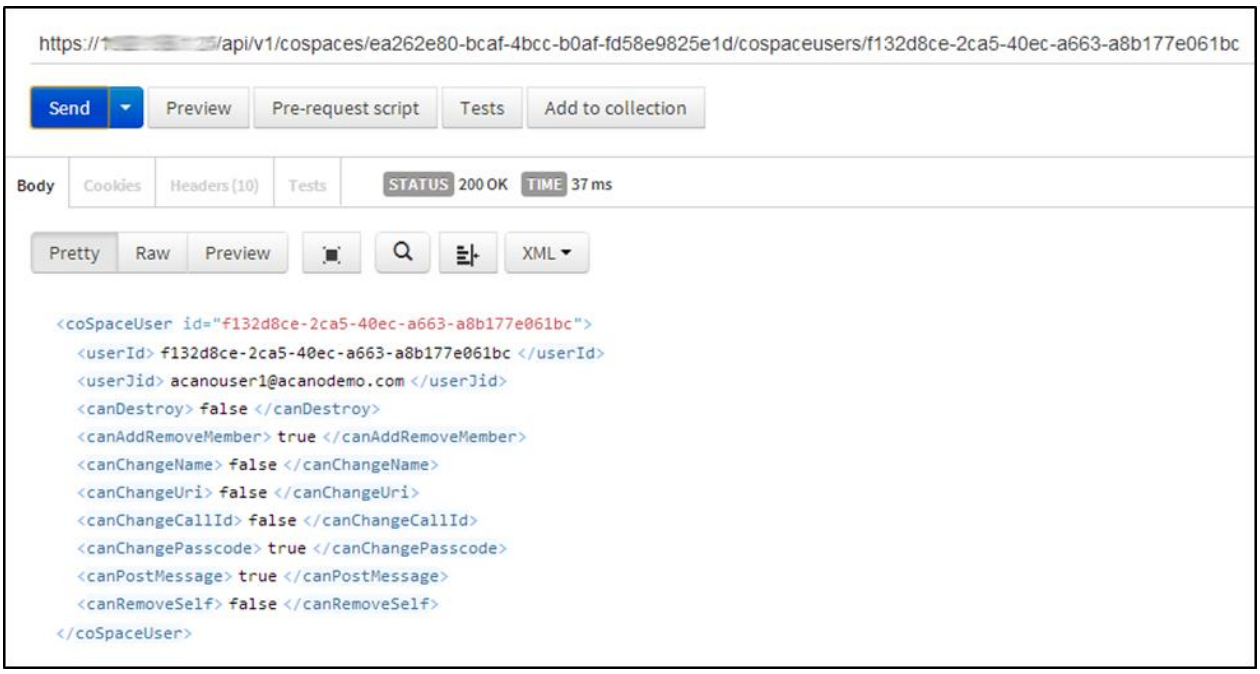
During a call, users might be able to add participants (with the icon in the side-panel) and remove participants by clicking on video pane and selecting **Remove**. If a user cannot do so but thinks that they should be able to:

a. Check whether the user is a member of the coSpace. On the Acano client, ask the user to click coSpaces; if the coSpace is in the list of coSpaces then that user is a member.

   If the user is signed in to the Acano client but is only in this coSpace call as a guest/visitor, then the user cannot add or remove participants; if the user is a member of the coSpace then they may have permission – see the next step.

b. If the user is a member of that coSpace, check whether they have the permission to remove and add participants. The API URL format to do this is https://<acano_server_IP_address>/api/v1/cospaces/<coSpace_id>/cospaceusers/<user_id>.

   The following is an example (using the Postman tool) and you can see that this participant user should be able to remove/add participants because the parameter <canAddRemoveMember> is set to true.



8.2 Guest Issues

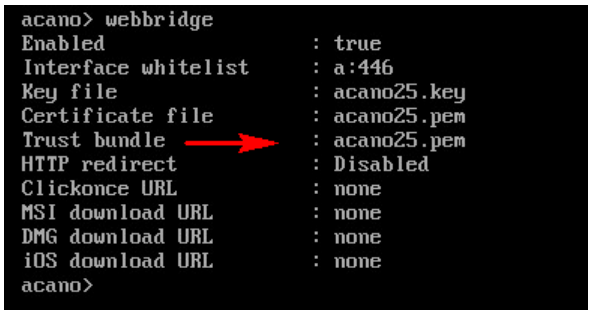
8.2.1 Cannot join call as a guest using the Chrome browser

As a guest user, anyone can join a call on Chrome — either via a guest user web link or by providing the Call ID. If a user experience issues, check the following:

1. If the user sees the message “Unable to connect – try again later”, sign in to the Web Admin Interface and check the Guest Account JID Domain in **Configuration > General**. It has to be configured correctly.

2. If a user sees the message “Unable to connect to server” check the Web Bridge trust certificate configuration using the MMP command line interface. The Web Bridge must trust the Call Bridge certificate. For details, see the Acano solution Deployment Guide.

   See right for an example in which there is trust bundle; it must be the certificate that is used by Call Bridge.

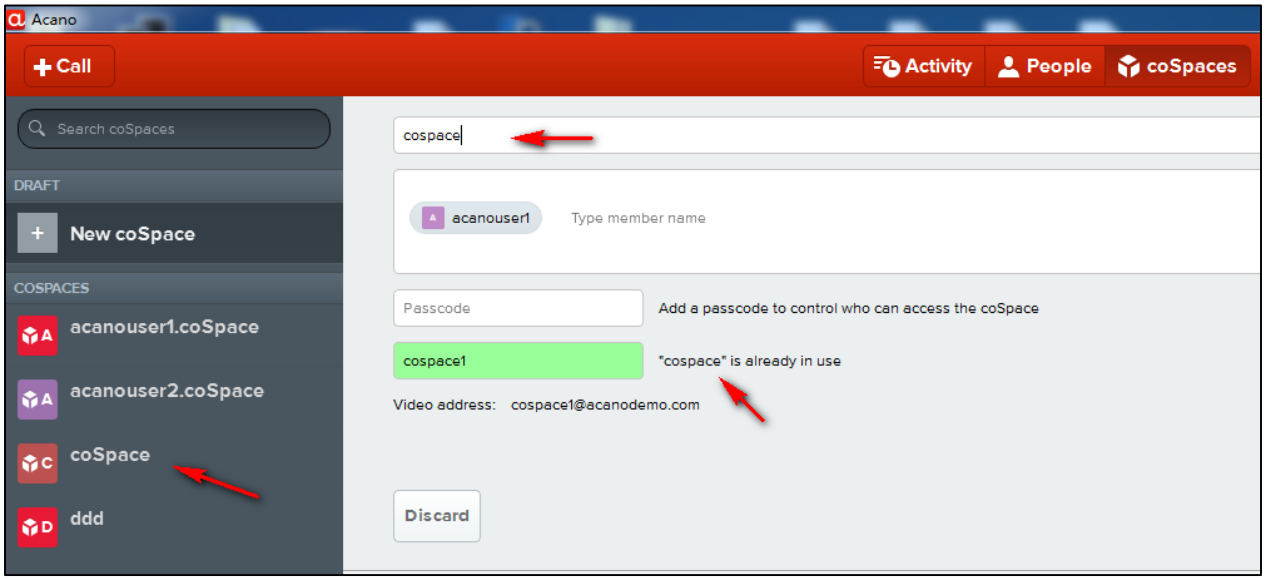


9 coSpace Management Issues

9.1 Duplicated coSpace Video Address

When you create a new coSpace on client, you type the coSpace name. The “Video address” is created automatically, as showing below in green. In this example the address could not match the coSpace name exactly because the video address would then be a duplicate of one that exists already. You can either use the address suggested or change it (as long as you chose a unique address).

In summary, a user can have many coSpaces with the same name, but the “Video address” must be unique on a Call Bridge or within a clustered deployment.



9.2 A coSpace Member is Missing

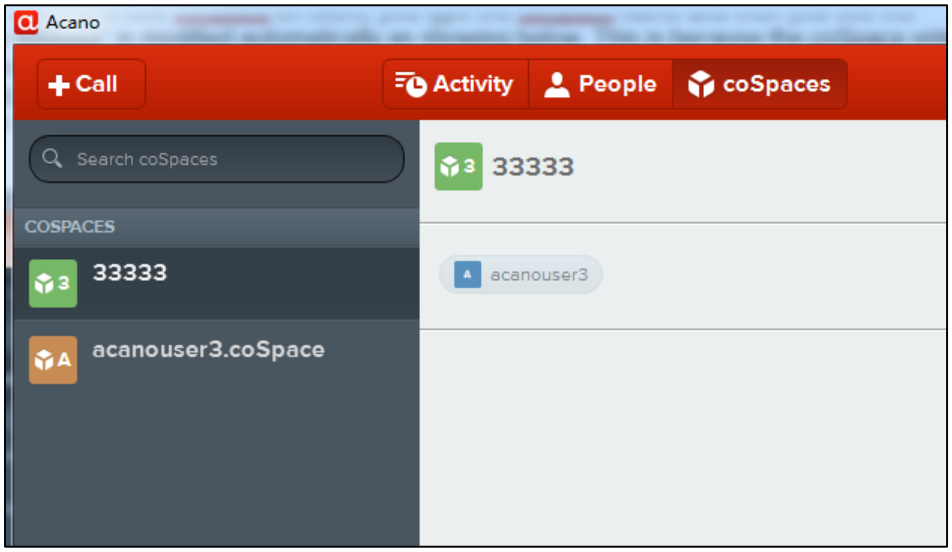
If a user account is removed accidentally, the user is removed from the coSpaces that he or she was a member of. To add the user to the coSpaces as a member again, first recreate the user and then do one of the following:

- Log in as a member of that coSpace on an Acano client and add the removed user
- Add the user via the API. The API URL format is https:// <acano_server_IP_address>/api/v1/cospaces/<coSpace_id>/cospaceusers.

  The following is an example of adding a member via the API.

https:// <acano_server_IP_address>/api/v1/cospaces/e843dbf5-4945-43b0-afe3-93175de37d34/cospaceusers

The user should now be able to log in to an Acano client and see the coSpace.



10 Problems with SIP Endpoints

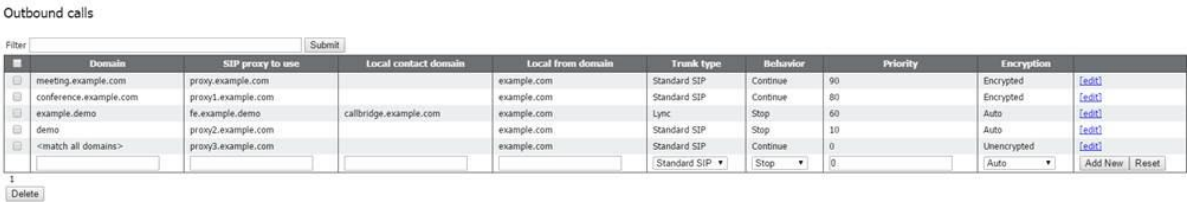
If your users are experiencing issues with a SIP call, look for the issue in this section and follow the suggested steps in that section. If they do not resolve the issue, send an email to support@acano.com with the information asked for in the appropriate section.

10.1 Call Cannot be Established

Generally, the following circumstances are regarded as call establishment failure.

1. Caller gets disconnected right away after placing the call

   - If the call is placed from an Acano client, check the Outbound calls dial plan on the Acano server; a matched dial plan rule must be configured to route the outbound call


Outbound calls

Filter Submit

	Domain	SIP proxy to use	Local contact domain	Local from domain	Trunk type	Behavior	Priority	Encryption	
	meeting.example.com	proxy.example.com		example.com	Standard SIP	Continue	90	Encrypted	[edit]
	conference.example.com	proxy1.example.com		example.com	Standard SIP	Continue	80	Encrypted	[edit]
	example.demo	fe.example.demo	callbridge.example.com	example.com	Lync	Stop	60	Auto	[edit]
	demo	proxy2.example.com		example.com	Standard SIP	Stop	10	Auto	[edit]
	<match all domains>	proxy3.example.com		example.com	Standard SIP	Continue	0	Unencrypted	[edit]
					Standard SIP	Stop	0	Auto	Add New Reset

1

Delete

   - If the call is placed from an external SIP endpoint, check the dial plan on the external SIP call control device, a matched dial plan rule must be configured to route the call out to the Acano server. If that is correct, then check the dial plan on the Acano server, a matched Inbound calls dial plan rule must be configured to route the incoming call

Incoming call handling

Call matching

	Domain name	Priority	Targets coSpaces	Targets users	Targets IVRs	Targets Lync	Tenant	
	example.com	0	yes	yes	yes	no	no	[edit]
		0	yes	yes	yes	no		Add New Reset

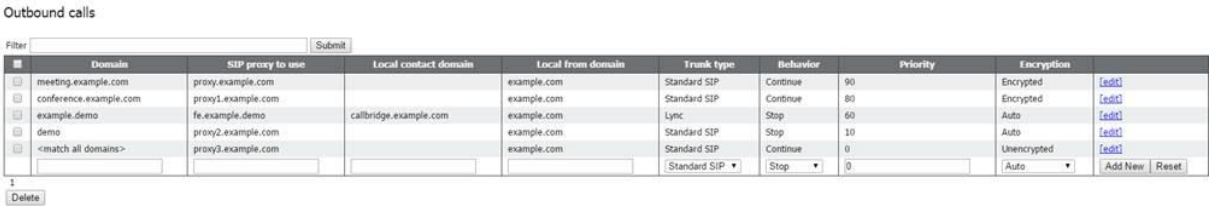
1

Delete

   - Check that the SIP trunk on the external SIP call control device is active

2. Call is placed, but the caller never hears the ring tone and the called party never gets the incoming call

   - If the call is placed from an Acano client, check the Outgoing calls dial plan on the Acano server; a matched dial plan rule must be configured to route the call out to the expected external call control device


Outbound calls

Filter Submit

	Domain	SIP proxy to use	Local contact domain	Local from domain	Trunk type	Behavior	Priority	Encryption	
	meeting.example.com	proxy.example.com		example.com	Standard SIP	Continue	90	Encrypted	[edit]
	conference.example.com	proxy1.example.com		example.com	Standard SIP	Continue	80	Encrypted	[edit]
	example.demo	fe.example.demo	callbridge.example.com	example.com	Lync	Stop	60	Auto	[edit]
	demo	proxy2.example.com		example.com	Standard SIP	Stop	10	Auto	[edit]
	<match all domains>	proxy3.example.com		example.com	Standard SIP	Continue	0	Unencrypted	[edit]
					Standard SIP	Stop	0	Auto	Add New Reset

1

Delete

- If the call is placed from an external SIP endpoint, check the dial plan on the external SIP call control device, a matched dial plan rule must be configured to route the call to Acano server
- Check the Acano server and the external SIP call control device; ensure that there is no call loop caused by wrong dial plan configuration

3. Called party sees the incoming call and hears the ringtone, but the caller never hears the ring
   Called party has answered the call, but the caller still hears the ring tone
   Call gets disconnected right after called party answers the call

   - Try to call SIP endpoints at different locations—and through different SIP trunks, if applicable
   - Try to place a call in both directions.

   If some test calls work, compare the working scenario(s) with the non-working scenario, including the model and software version of the SIP call control device and of the SIP endpoints. Compare network locations and configuration. Possible causes could be device compatibility, network connectivity and incorrect configuration.

If any of circumstances above is still encountered but the points above do not help you overcome the issue, place a single testing call and collect the following information:

- Software version of Acano solution
- Type of Acano Server or virtualized deployment
- Type and version of the operating system that your Acano client runs on
- Model and version of SIP call control device and SIP endpoints
- State the problem, and attach SIP trace (see Appendix A)

Email all the information to support@acano.com

10.2 Call Cannot be Hung Up

After one participant hangs up the call, the other(s) get stuck in the call and do not see that the call has been disconnected place a single testing call and collect the following information:

- Software version of Acano solution
- Type of Acano Server or virtualized deployment
- Type and version of the operating system that your Acano client runs on
- Model and version of SIP call control device and SIP endpoints
- State the problem, and attach SIP trace (see Appendix A)

Then email support@acano.com with this information.

10.3 Participant doesn't Receive Audio/video

After a call is connected, one participant does not receive audio and/or video.

1. Check the firewall settings

   It is likely that the firewall is blocking the media port(s). Check the Acano Deployment Guide and external SIP solution for the media port range.

If the firewall is not blocking media, place a single testing call and collect the following information:

- Software version of Acano solution
- Type of Acano Server or virtualized deployment
- Type and version of the operating system that your client runs on
- Model and version of SIP call control device and SIP endpoints
- State the problem, and attach SIP trace and pcap file (see Appendix A)

Then email support@acano.com with this information.

10.4 Participant Receives Bad Audio/video

After the call is connected, one participant receives bad audio and/or video.

1. Try to place a testing call using a lower bandwidth.

   Bad audio/video is probably caused by packet loss or network delay. By using a lower bandwidth, check whether the audio/video improves.

2. If possible, use a different codec on the SIP endpoint.

   A possible cause is an encode/decode issue. Try to change the audio/video codec and check whether the issue is solved.

If this issue is still encountered, place a single testing call and collect the following information:

- Software version of Acano solution
- Type of Acano Server or virtualized deployment
- Type and version of the operating system that your client runs on
- Model and version of SIP call control device and SIP endpoints
- State the problem, and attach SIP trace and pcap file (see Appendix A)
- Attach the diagnostic information from client (see Appendix A)
- Attach the diagnostic information from Acano server (see Appendix A)

Then email support@acano.com with this information.

10.5 Dual Stream/presentation Issue

During a call, participants cannot receive dual stream video/presentation.

3. Check the firewall settings.

   It is likely that the firewall is blocking the media port(s). Check the Acano Deployment Guide and external SIP solution documentation for the dual steam media port range.

4. If possible, use different codec on SIP endpoint.

   A possible reason is encode/decode issue. Change audio/video codec for dual stream/presentation and check whether the issue can be solved.

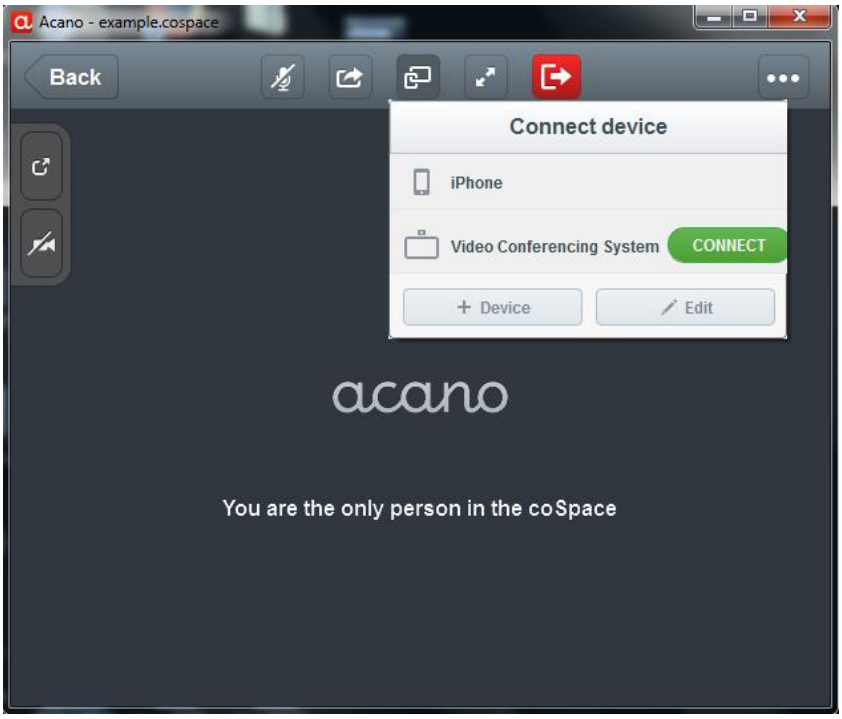
If this issue still occurs, place a single testing call and collect the following information:

- Software version of Acano solution
- Type of Acano Server or virtualized deployment
- Type and version of the operating system that your client runs on
- Model and version of SIP call control device and SIP endpoints
- State the problem, and attach SIP trace and pcap file (see Appendix A)
- Attach the diagnostic information from client (see Appendix A)
- Attach the diagnostic information from Acano server (see Appendix A)

Then email support@acano.com with this information.

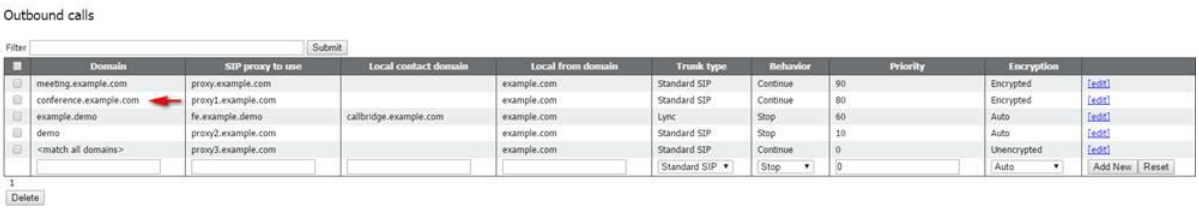
10.6 Issues moving call to video devices or phone

Clients have the ability to move a call to a video conferencing system or to a regular phone for audio only.



1. When you move a call, if the device you moved the call to does not ring, then:

- check the Acano Web Admin configuration of Outbound calls, and make sure an outbound rule is configured with the domain that is used to move the call. For example, if you want to move a call to endpoint@conference.example.com, make sure you have an outbound rule (see below) that has conference.example.com as the Domain.



- place a call from Acano client to the device to check the connectivity. If the test call can be connected, but the moving call fails, please replicate this issue and take a SIP trace on the Acano server. Send the trace to Acano support with a description of the problem.

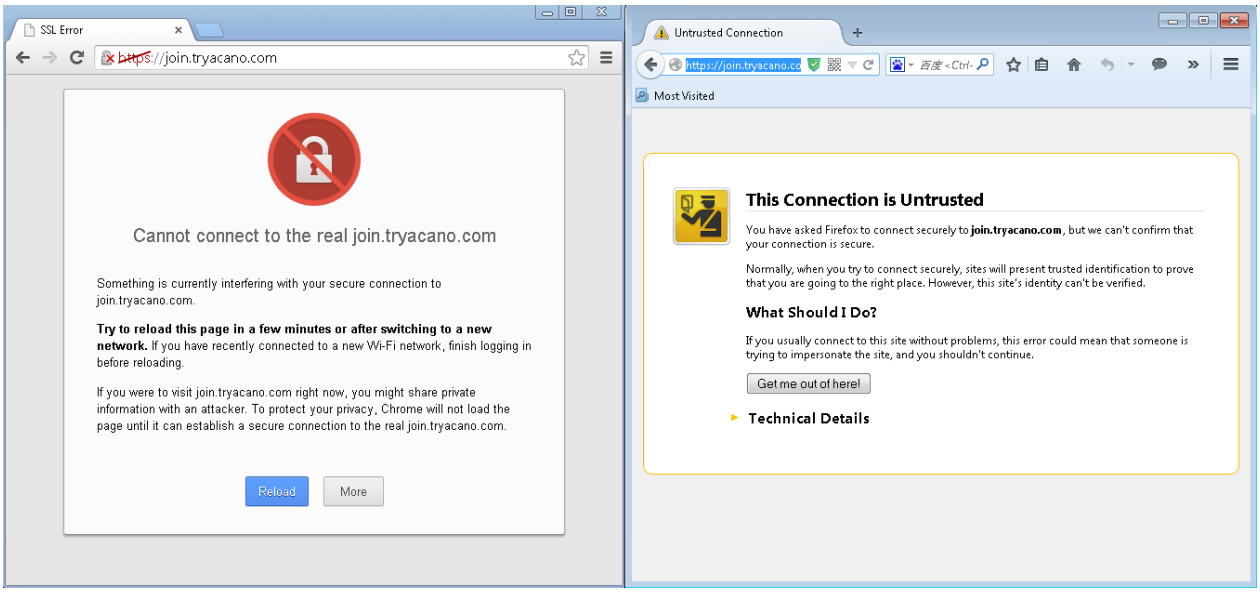
11 WebRTC Browser Certificate Issues

If your users are experiencing issues with WebRTC browser certificate, look for the issue in this section and follow the suggested steps. If they do not resolve the issue, send an email to support@acano.com with the following information:

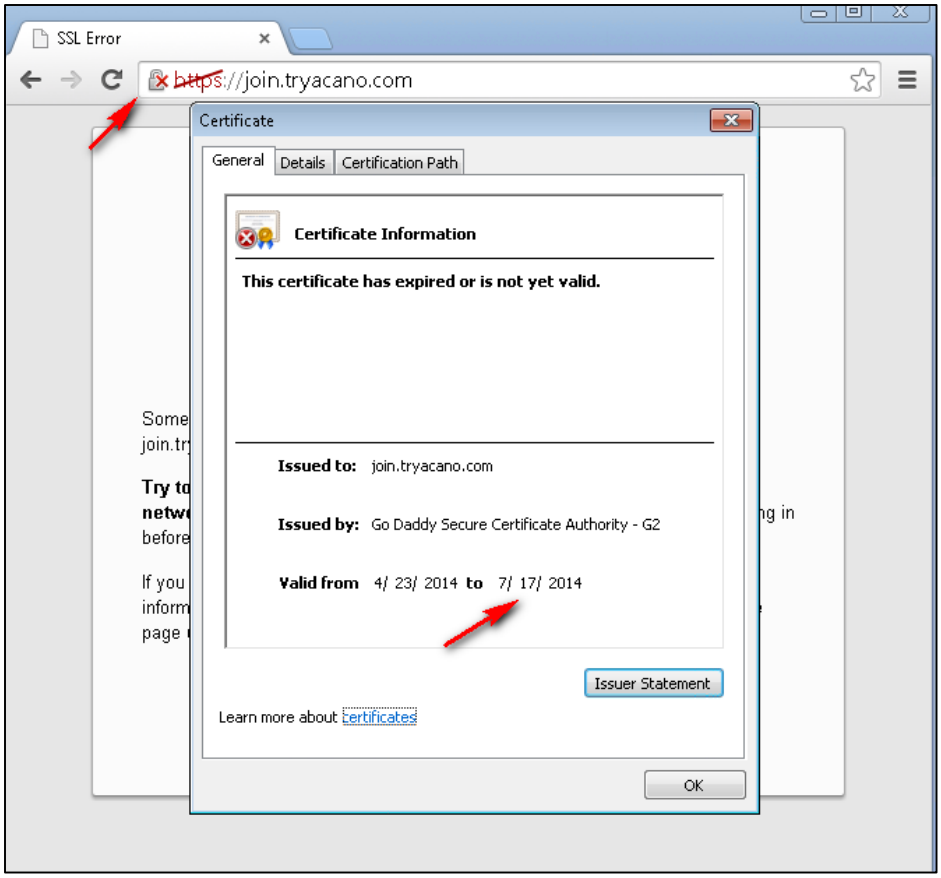
- Software version of Acano solution
- Type of Acano Server or virtualized deployment
- Type and version of the operating system that your client runs on
- Type and version of the WebRTC browser
- live.json file
- Screenshot of the error page

11.1 Certificate has Expired

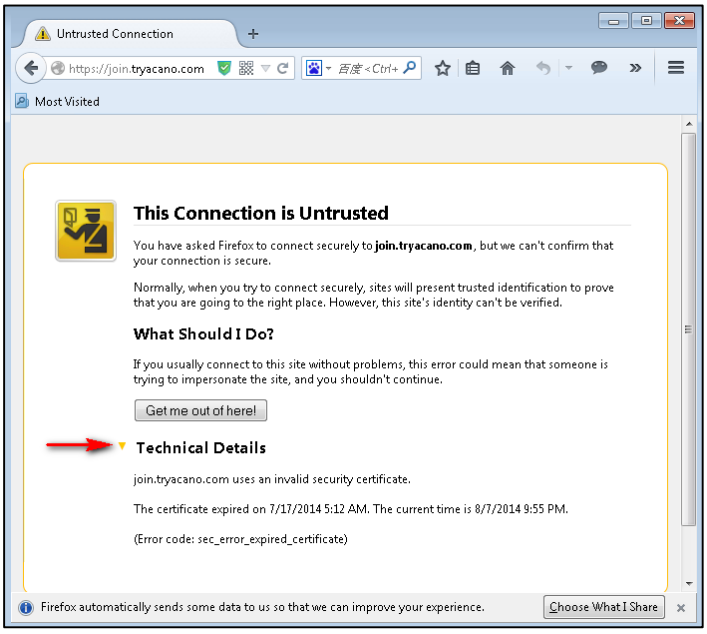
If you get the either of the errors shown below (Google Chrome on the left, and Firefox), then try the following:


SSL Error
https://join.tryacano.com
Cannot connect to the real join.tryacano.com
Something is currently interfering with your secure connection to join.tryacano.com.
Try to reload this page in a few minutes or after switching to a new network. If you have recently connected to a new Wi-Fi network, finish logging in before reloading.
If you were to visit join.tryacano.com right now, you might share private information with an attacker. To protect your privacy, Chrome will not load the page until it can establish a secure connection to the real join.tryacano.com.
Reload
More
Untrusted Connection
https://join.tryacano.co
Most Visited
This Connection is Untrusted
You have asked Firefox to connect securely to join.tryacano.com, but we can't confirm that your connection is secure.
Normally, when you try to connect securely, sites will present trusted identification to prove that you are going to the right place. However, this site's identity can't be verified.
What Should I Do?
If you usually connect to this site without problems, this error could mean that someone is trying to impersonate the site, and you shouldn't continue.
Get me out of here!
Technical Details

- If the browser is Google Chrome, click the lock icon on the address bar and then click Certificate Information to display the error details. In the example below, the certificate on Acano server has expired.



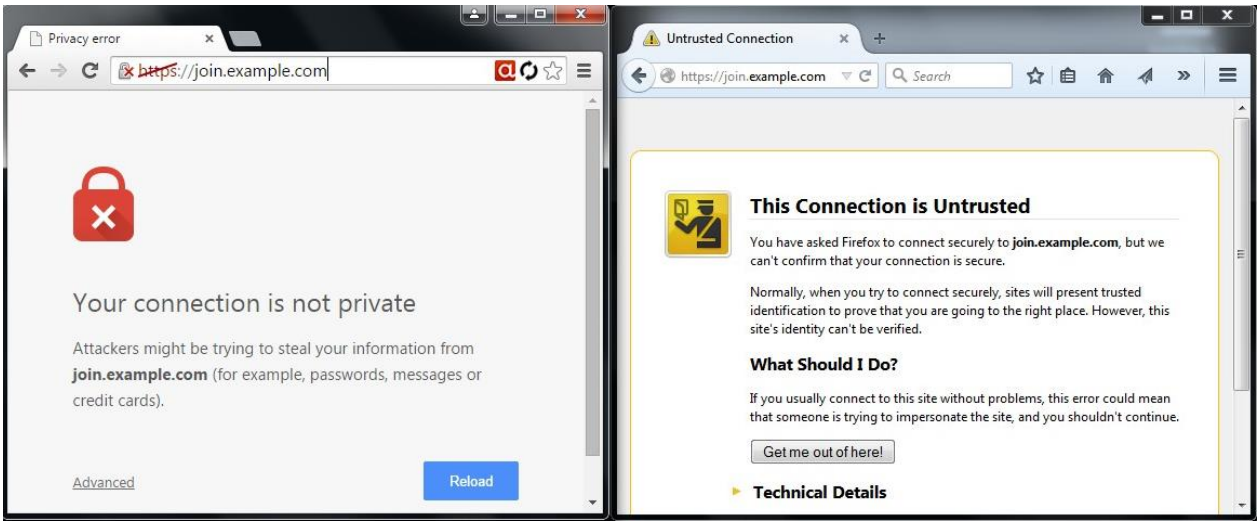
- If the browser is Firefox, click and expend the **Technical Details** to display the error details. In the example below, the certificate on Acano server has expired.


Untrusted Connection
https://join.tryacano.com
Most Visited
This Connection is Untrusted
You have asked Firefox to connect securely to join.tryacano.com, but we can't confirm that your connection is secure.
Normally, when you try to connect securely, sites will present trusted identification to prove that you are going to the right place. However, this site's identity can't be verified.
What Should I Do?
If you usually connect to this site without problems, this error could mean that someone is trying to impersonate the site, and you shouldn't continue.
Get me out of here!
Technical Details
join.tryacano.com uses an invalid security certificate.
The certificate expired on 7/17/2014 5:12 AM. The current time is 8/7/2014 9:55 PM.
(Error code: sec_error_expired_certificate)
Firefox automatically sends some data to us so that we can improve your experience.
Choose What I Share

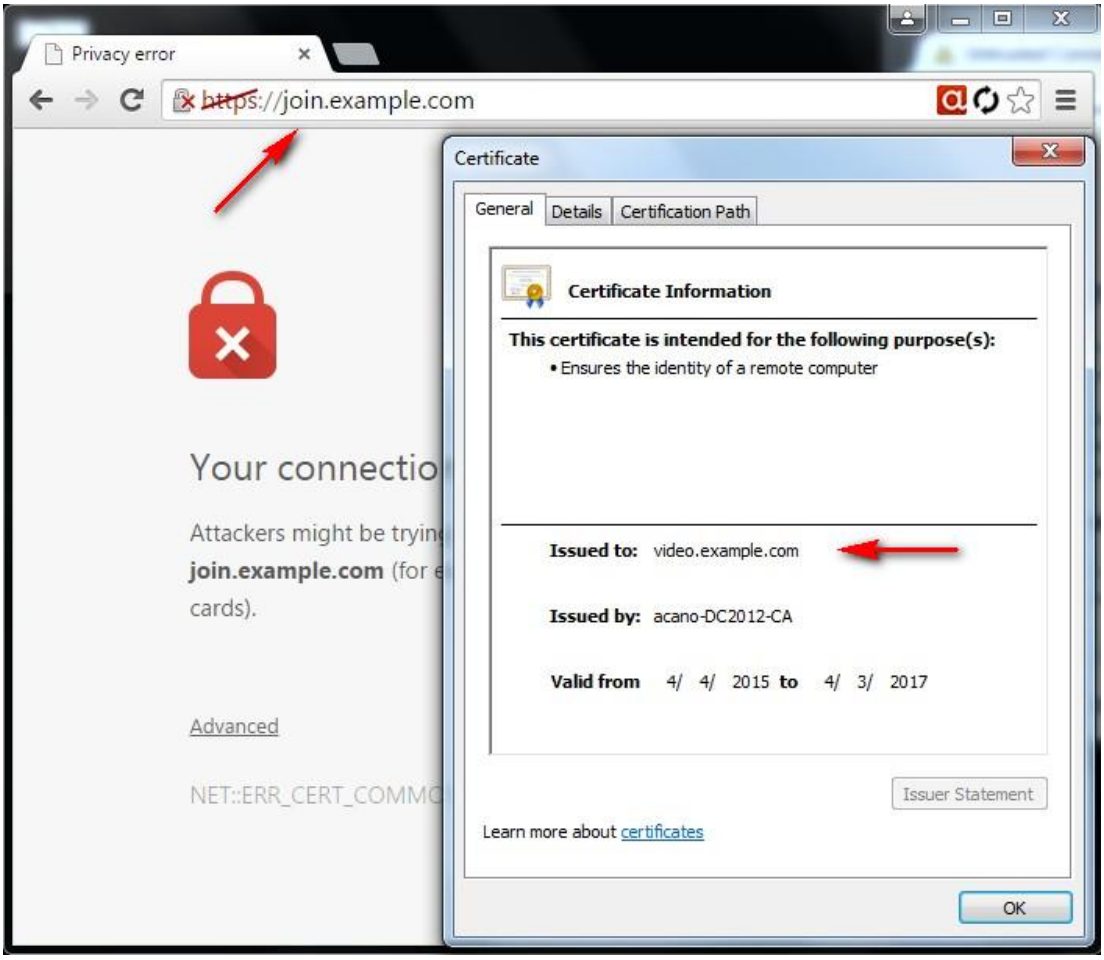
In this case, you need to renew the appropriate certificate on Acano server and replace the expired certificate.

11.2 Certificate Issued in the Wrong Name

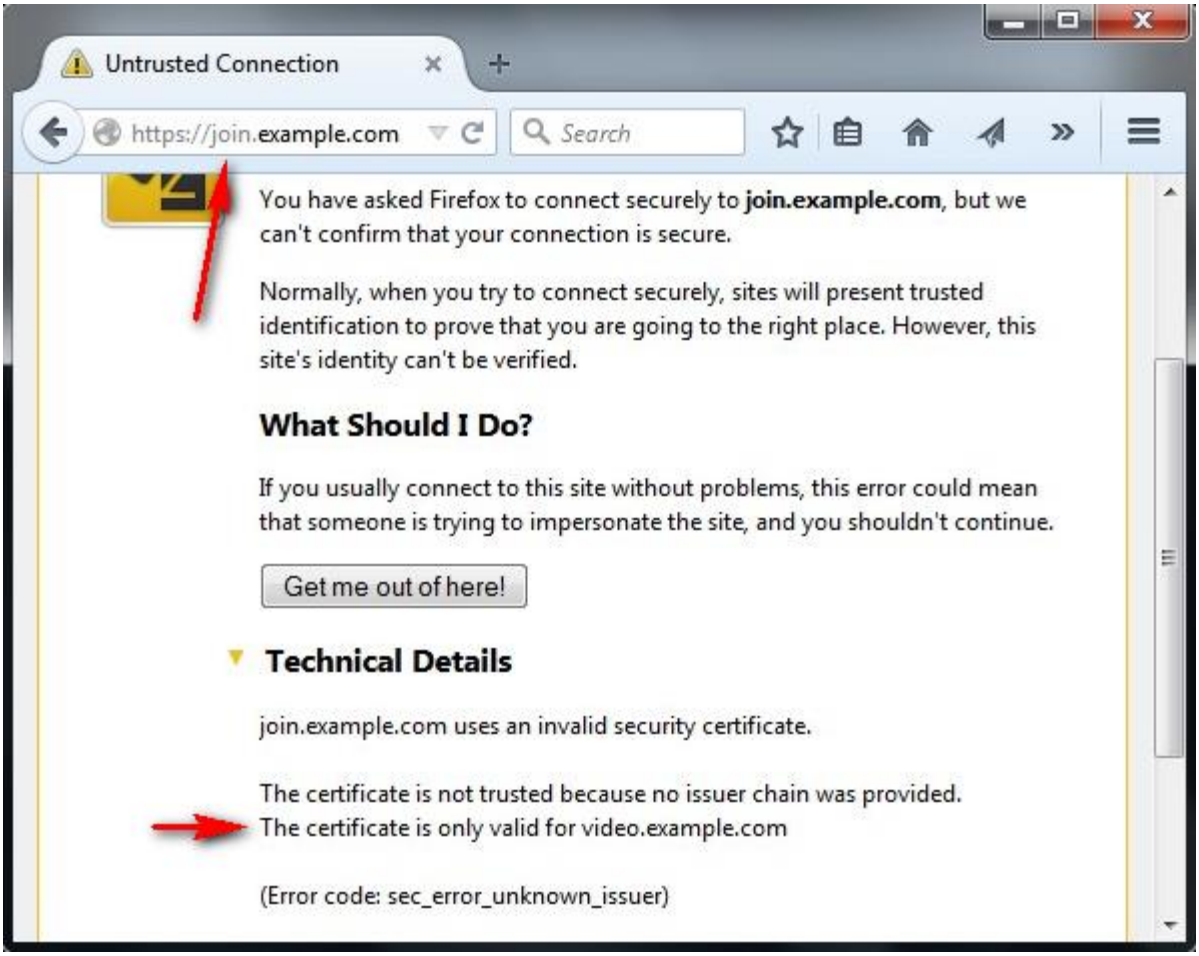
If you get either of the errors shown below (Google Chrome on the left, Firefox on the right), the SSL connection cannot be established due to certificate issues.


Privacy error
https://join.example.com
Your connection is not private
Attackers might be trying to steal your information from join.example.com (for example, passwords, messages or credit cards).
Advanced
Reload
Untrusted Connection
https://join.example.com
Search
This Connection is Untrusted
You have asked Firefox to connect securely to join.example.com, but we can't confirm that your connection is secure.
Normally, when you try to connect securely, sites will present trusted identification to prove that you are going to the right place. However, this site's identity can't be verified.
What Should I Do?
If you usually connect to this site without problems, this error could mean that someone is trying to impersonate the site, and you shouldn't continue.
Get me out of here!
Technical Details

- If the browser is Google Chrome, click the lock icon on the address bar and click Certificate information to display the error details. In this example, the certificate on Acano server is issued to “video.example.com” but the correct site is called “join.example.com” (see below).



- If the browser is Firefox, click and expend the Technical Details to display the error details. In this example, the certificate on Acano server is only valid for the name video.example.com. But you are trying to access join.example.com (see below).


Untrusted Connection
https://join.example.com
Search
You have asked Firefox to connect securely to join.example.com, but we can't confirm that your connection is secure.
Normally, when you try to connect securely, sites will present trusted identification to prove that you are going to the right place. However, this site's identity can't be verified.
What Should I Do?
If you usually connect to this site without problems, this error could mean that someone is trying to impersonate the site, and you shouldn't continue.
Get me out of here!
Technical Details
join.example.com uses an invalid security certificate.
The certificate is not trusted because no issuer chain was provided.
The certificate is only valid for video.example.com
(Error code: sec_error_unknown_issuer)

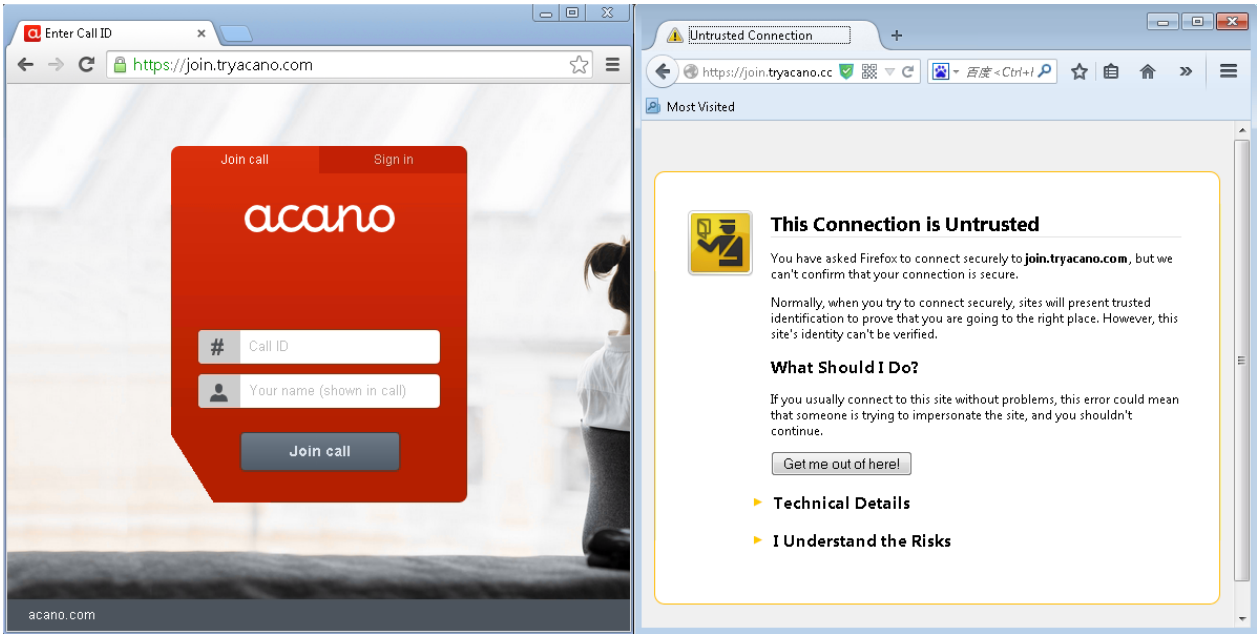
In case, you need to re-issue the appropriate certificate on Acano server for correct name and replace the wrong certificate.

11.3 Bundled Certificate Error

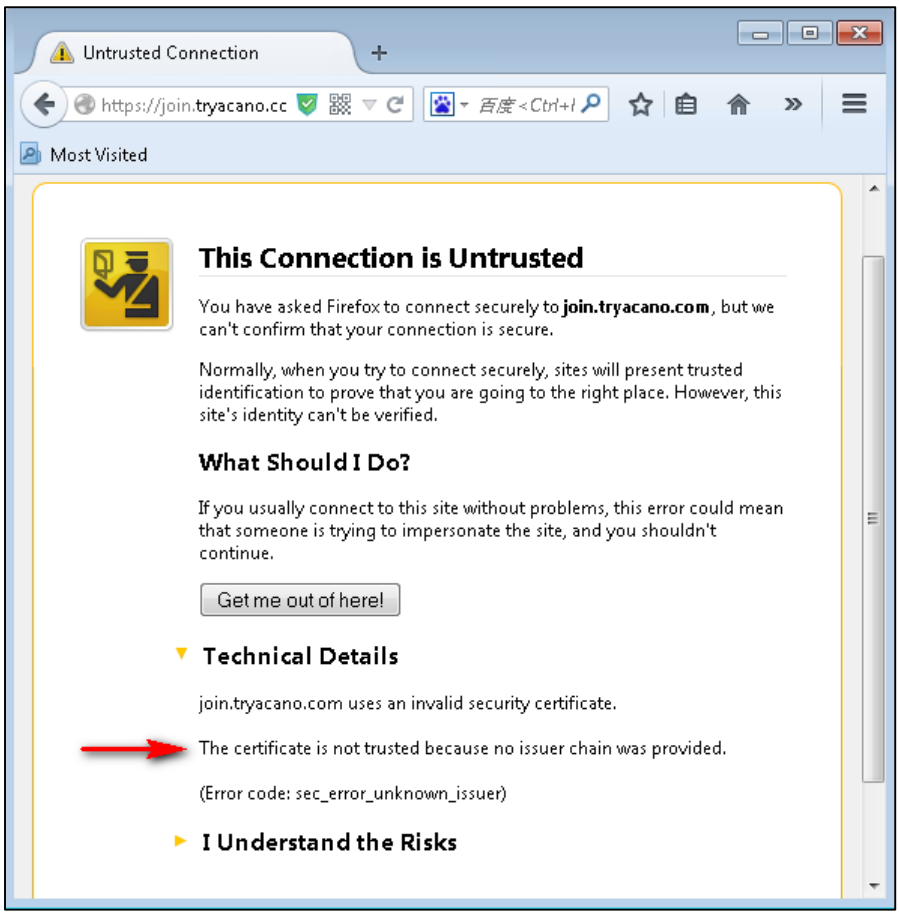
To learn more about certificate bundles, see http://en.wikipedia.org/wiki/Intermediate_certificate_authorities. The Acano Certificate Guidelines is also a useful reference for understanding the different types of certificates and the implications of using intermediate signing authorities.

If you get the error shown below on Firefox (image on the right), the SSL connection cannot be established due to certificate issues.

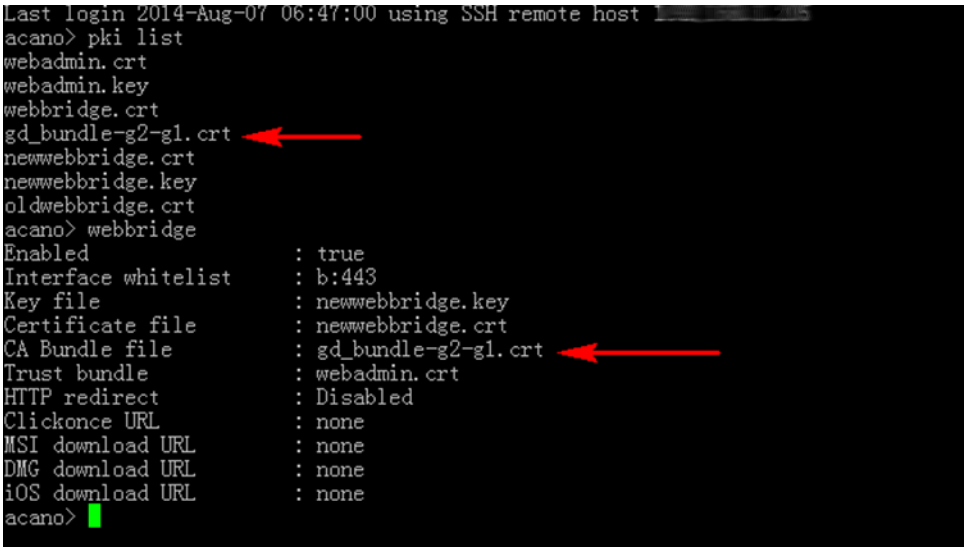
In this case, on the same PC, there is no certificate issued on Google Chrome. IE and Chrome on Windows have no issues with this because they can link to the Root CA with no issues. Mobile browsers, and Firefox and Chrome on Mac may have issues though.


Enter Call ID
https://join.tryacano.com
Join call
Sign in
acano
Call ID
Your name (shown in call)
Join call
acano.com
Untrusted Connection
https://join.tryacano.cc
Most Visited
This Connection is Untrusted
You have asked Firefox to connect securely to join.tryacano.com, but we can't confirm that your connection is secure.
Normally, when you try to connect securely, sites will present trusted identification to prove that you are going to the right place. However, this site's identity can't be verified.
What Should I Do?
If you usually connect to this site without problems, this error could mean that someone is trying to impersonate the site, and you shouldn't continue.
Get me out of here!
Technical Details
I Understand the Risks

In this example, click and expand the Technical Details on Firefox as shown below. If it states that the certificate is not trusted because no issuer chain was provided, the Acano server does not send bundle certificate to the client.


Untrusted Connection
https://join.tryacano.cc
Most Visited
This Connection is Untrusted
You have asked Firefox to connect securely to join.tryacano.com, but we can't confirm that your connection is secure.
Normally, when you try to connect securely, sites will present trusted identification to prove that you are going to the right place. However, this site's identity can't be verified.
What Should I Do?
If you usually connect to this site without problems, this error could mean that someone is trying to impersonate the site, and you shouldn't continue.
Get me out of here!
Technical Details
join.tryacano.com uses an invalid security certificate.
The certificate is not trusted because no issuer chain was provided.
(Error code: sec_error_unknown_issuer)
I Understand the Risks

1. Log in to the Acano server via SSH, using your Web Admin Interface login credentials. Execute the commands `pki list` and `webbridge` and check whether the CA Bundle file is uploaded and assigned to the Web Bridge. If not, upload the bundle certificate and assign it to the Web Bridge by issuing the command `webbridge certs <private_key> <cert> <bundle_cert>`.



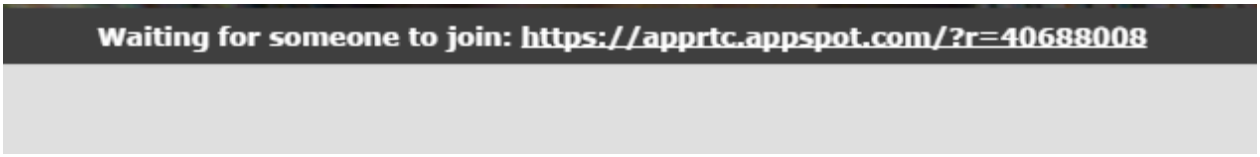
After bundle certificate has been uploaded and assigned to the Web Bridge, check whether the issue has gone.

12 WebRTC Client Issues

12.1 WebRTC Client Connection Issues

If the WebRTC Client has difficulty joining a meeting or transmitting audio/video, a good starting point is to go to https://apprtc.appspot.com using Chrome. Then open another tab, and type chrome://webrtc-internals/ which will show ICE information. If you see a self-view this validates that Chrome can access your camera and microphone, that STUN packets are not being blocked on the part of the network visiting that site, and that the capabilities of the device will cope.

Then copy and send the link shown at the bottom to a colleague and initiate a point-to-point call with live two-way audio and video.



Success of these tests indicates that WebRTC calls with the Acano solution should also be successful providing you have the same firewall configurations between the Acano solution and the browser, as you do between the two browsers in the call.

Should any of these tests fail, PC or network issues should be investigated.

12.2 Unable to Reach Web Client Landing Page

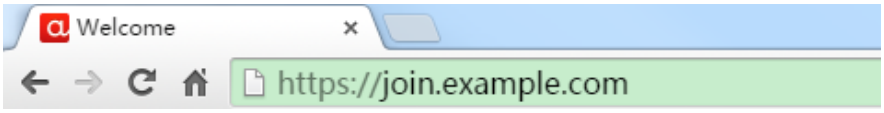
1. Check that the Web Bridge is running and enabled.

   SSH to the MMP and type the command `webbridge` to determine whether the Web Bridge is enabled.

2. Check that the DNS server address is configured:
   - At the Windows command prompt, type command `ipconfig /all`
   - On a Mac terminal, type command `scutil --dns`

     The DNS server address must be the DNS that either has the required A record configured or is able to forward the DNS query to another DNS server that can service this query.
3. Check that the DNS A record resolves to the correct address
   a. Verify the IP address that the FQDN in the web URL resolves to is correct

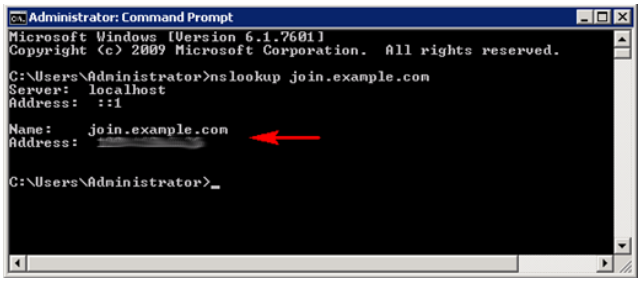
      An example web URL is https://join.example.com



b. At the PC Windows command prompt, type your equivalent of:

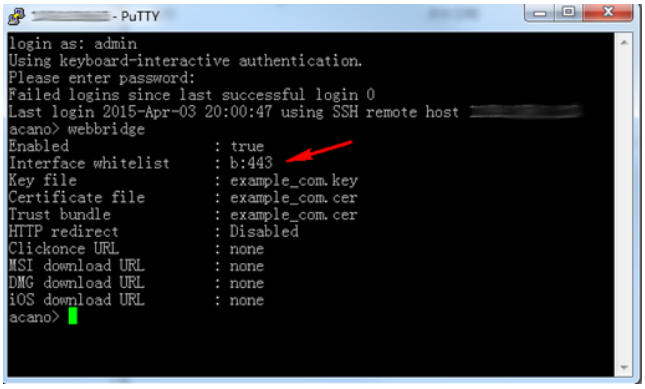
`nslookup join.example.com`.

Note the resolved IP address

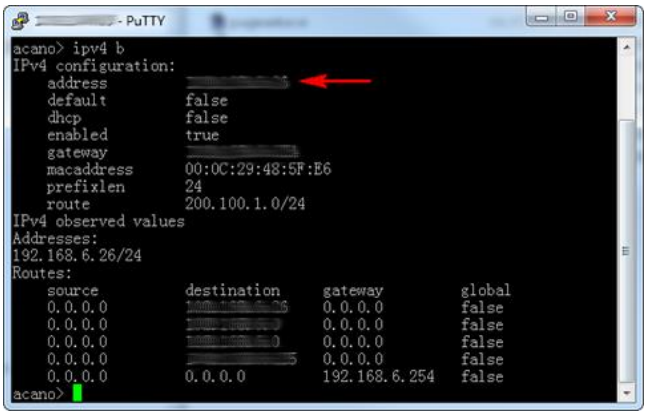


c. Verify that this IP address is associated with the interface that the Acano Web Bridge is listening to.

SSH to the MMP and type the command `webbridge` to see which interface the Web Bridge is listening to.



Then type the command that is equivalent to `ipv4 b` on your Acano solution to check the IP address.



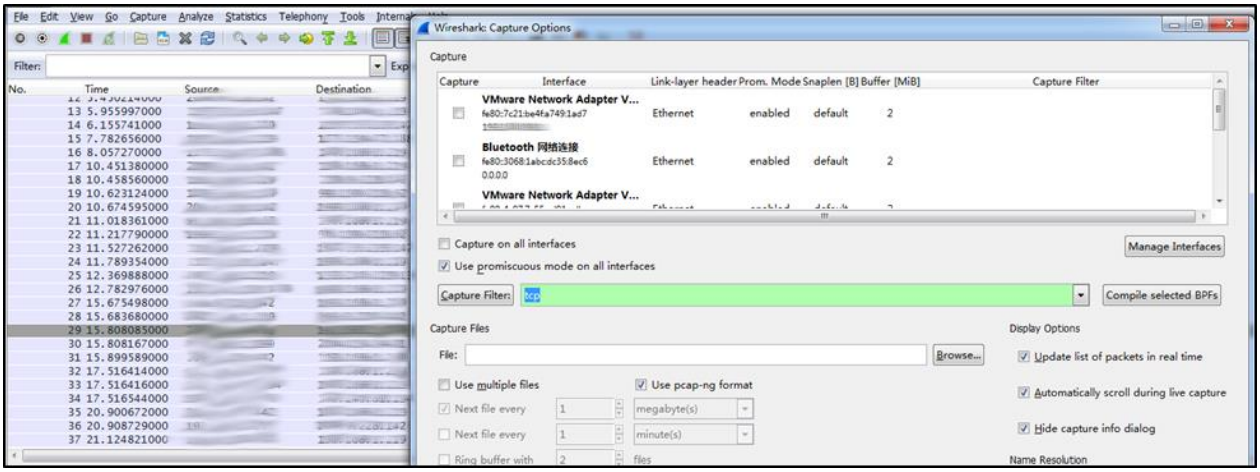
Note: If the Web Client landing page still does not work, send an email to support@acano.com with the following information:

- Software version of Acano solution
- Type of Acano Server or virtualized deployment
- Type and version of your operating system and your browser
- Output of the MMP command `webbridge`
- Output of command `ipv4 <webbridge_interface>`
- Live.json file (see Appendix A)
- MMP log (see Appendix A)

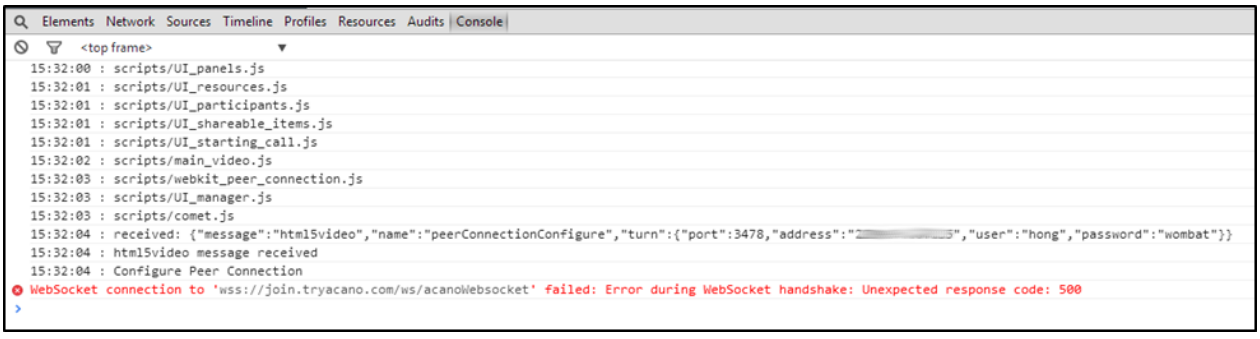
12.3 WebRTC Client Call Drops

One of the causes of such issues could be a firewall closing TCP connections - does it make any difference where the end user is network-wise?

If you are able to reproduce the problem, take a wireshark trace on the PC running Chrome, but use 'tcp' as a capture filter to avoid capturing all the UDP media traffic to see if there is anything at a network level that could be causing this.



Also enable the Javascript console in Chrome (Ctrl-Shift-J on Windows). Right-click on it and make sure Preserve Log on Navigation' is selected. Then when the call does drop send us the log from this console as well as the wireshark trace.

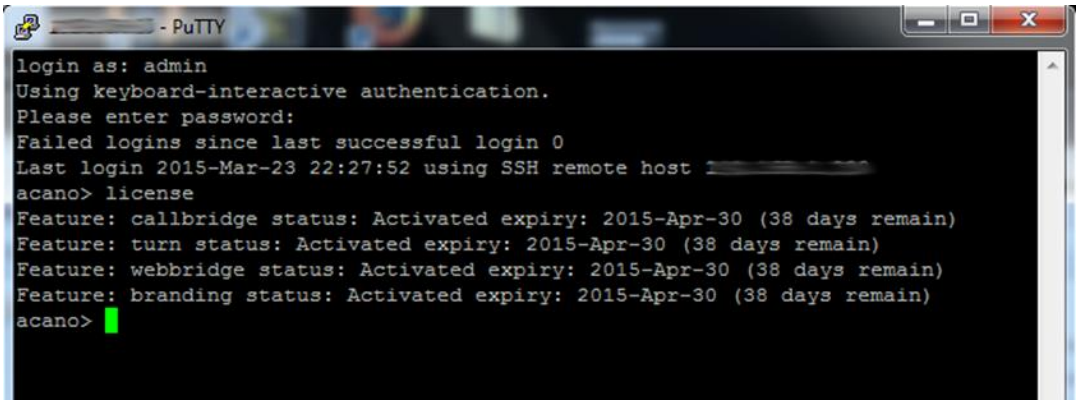

Elements Network Sources Timeline Profiles Resources Audits Console
<top frame>
15:32:00 : scripts/UI_panels.js
15:32:01 : scripts/UI_resources.js
15:32:01 : scripts/UI_participants.js
15:32:01 : scripts/UI_shareable_items.js
15:32:01 : scripts/UI_starting_call.js
15:32:02 : scripts/main_video.js
15:32:03 : scripts/webkit_peer_connection.js
15:32:03 : scripts/UI_manager.js
15:32:03 : scripts/comet.js
15:32:04 : received: {"message":"html5video","name":"peerConnectionConfigure","turn":{"port":3478,"address":"
","user":"hong","password":"wombat"}}
15:32:04 : html5video message received
15:32:04 : Configure Peer Connection
WebSocket connection to 'wss://join.tryacano.com/ws/acanoWebsocket' failed: Error during WebSocket handshake: Unexpected response code: 500

13 Customization issues

13.1 Customized feature not working

If you cannot get the customized background images, log or voice prompts to display or be heard, then please check the following.

1. Verify the license is in place. Issue command “license” on MMP. Server reboot is required after uploading license file.


[redacted] - PuTTY
login as: admin
Using keyboard-interactive authentication.
Please enter password:
Failed logins since last successful login 0
Last login 2015-Mar-23 22:27:52 using SSH remote host [redacted]
acano> license
Feature: callbridge status: Activated expiry: 2015-Apr-30 (38 days remain)
Feature: turn status: Activated expiry: 2015-Apr-30 (38 days remain)
Feature: webbridge status: Activated expiry: 2015-Apr-30 (38 days remain)
Feature: branding status: Activated expiry: 2015-Apr-30 (38 days remain)
acano>

> Note: in a split arrangement where the Acano components are deployed across two servers (Core and Edge), the branding licenses are only required on the Core server, they are not required on the Edge server.

2. For WebRTC customization, all customization files must be placed together in a zip file. For IVR and Call branding customization, do not put the customization files in a zip file. Please follow the Acano solution Customization Guidelines.
3. Make sure customization file sizes, properties and names meet the requirements in the Acano solution Customization Guidelines. You can find errors in the event log.

   For example, the following warnings mean the requested files are missing

Warning	call 3: audio prompt index 16 not found, signalling instance id 1 finished playing
Warning	call 3: audio prompt index 13 not found, signalling instance id 2 finished playing
Warning	call 3: audio prompt index 13 not found, signalling instance id 3 finished playing

   The message below means the audio file exceeded the sample rate

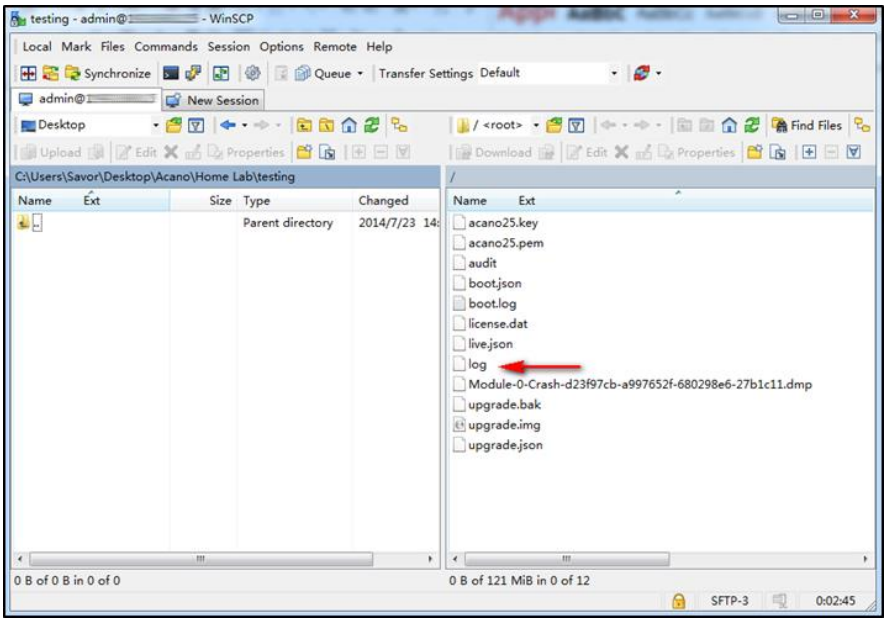
Warning	failed to validate supplied resource "http://192.168.1.188/ivrbrandingkhz/ivr_welcome.wav" - incompatible sample rate 44100Hz (only 8000Hz and 16000Hz accepted)

Appendix A Collecting Logs

If the steps in the previous sections do not solve your issue and you need to email Acano support, it is very helpful to attach some diagnostic logs. This section tells you how to collect them.

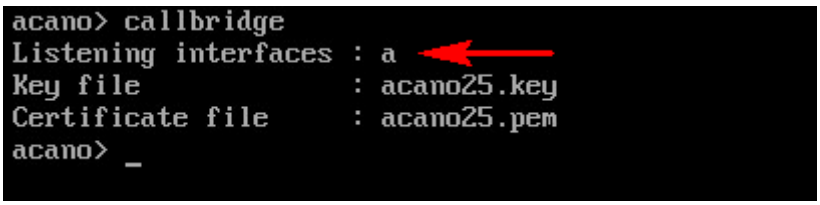
Collecting the MMP Log

1. Log in to the Acano server via WinSCP, using your Web Admin Interface login credentials.
2. Find the file called “log” under the root directory and drag it to your local PC. This is the MMP log to send to Acano support.



Collecting a pcap File

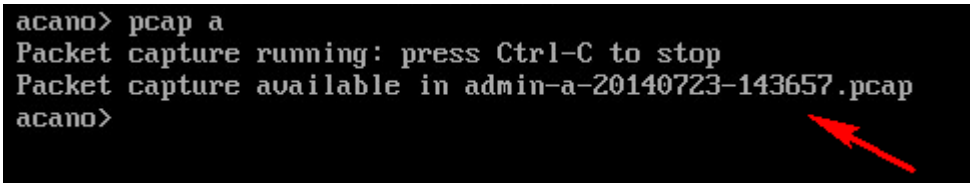
1. Log in to the Acano server via SSH, using your Web Admin Interface login credentials.
2. Check which interface the Call Bridge is listening to by execute the command `callbridge`.



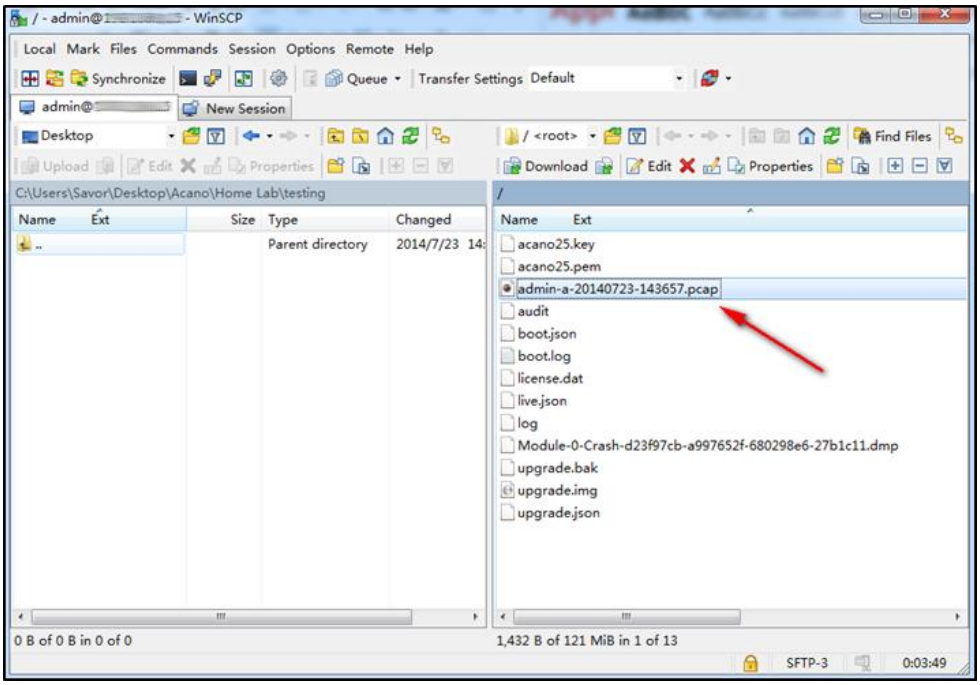
3. Start capturing packets on this interface by executing command `pcap <interface>` e.g.” `pcap a`.
4. Recreate the issue.

5. Press **Ctrl + C** to stop capturing.

   A pcap file has been created and the filename is shown; in this example, the file name is admin-a-20140723-143657.pcap

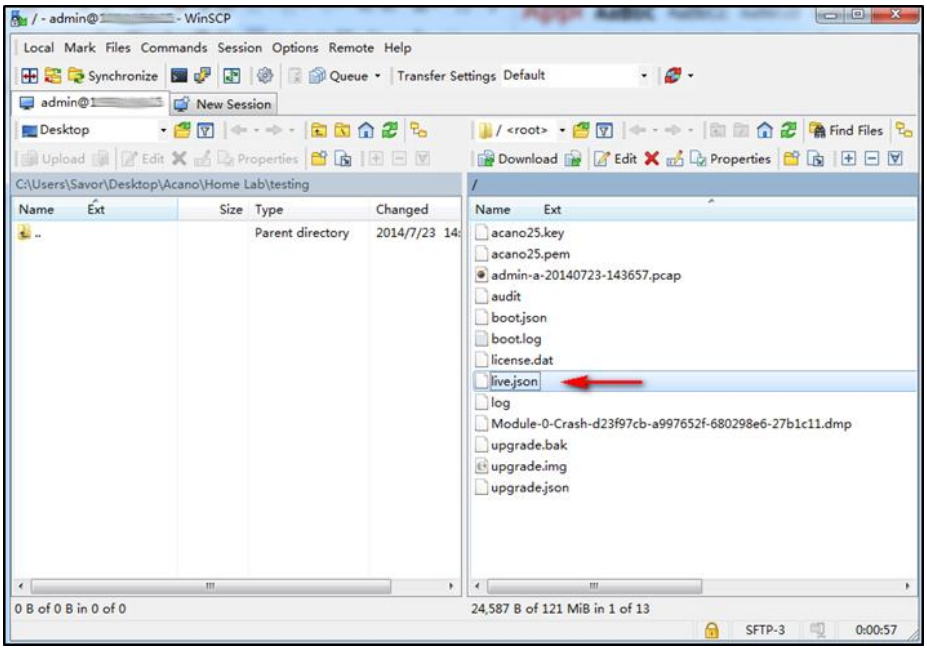


6. Log in to the Acano server via WinSCP, using the Web Admin Interface login credentials. Drag the file to your local PC.



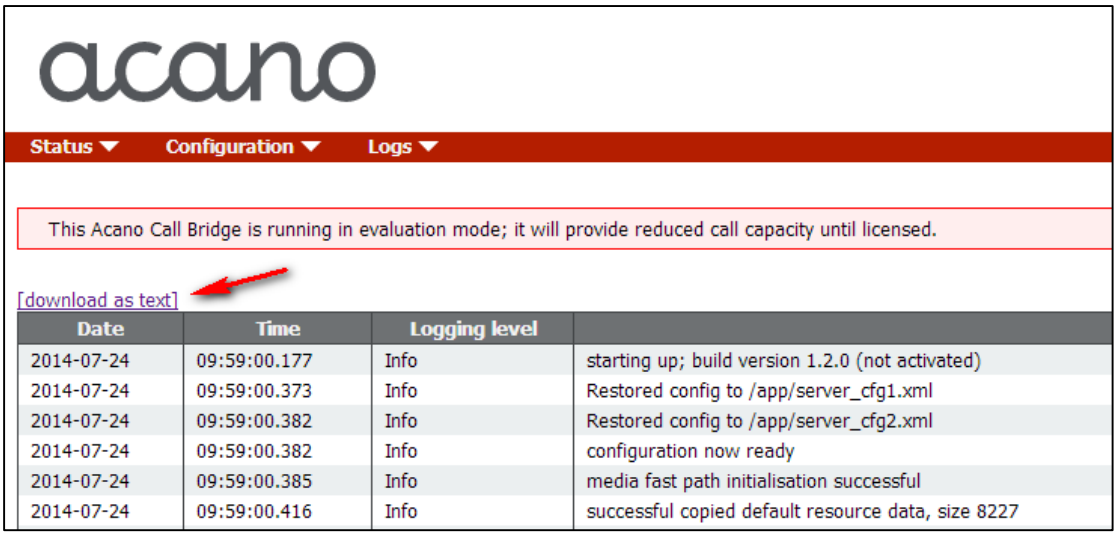
Collecting the live.json File

1. Log in to the Acano server via WinSCP, login credential is the same as Webadmin.
2. Find the file called “live.json” under the root directory and drag it to your local PC.



Collecting the Event Log

1. Go to Acano server Web Admin > Logs > Event log.
2. Click **download as text**
3. You are prompted for the location and file name.

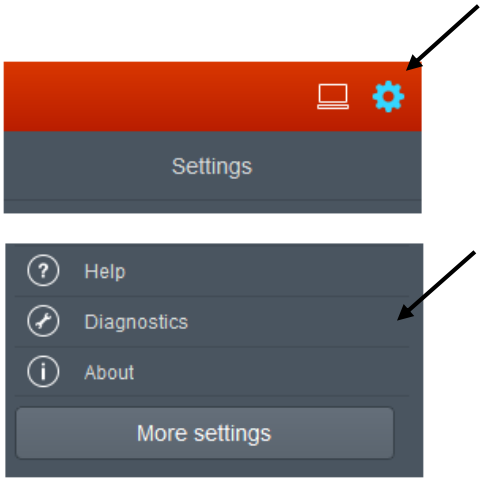

acano
Status
Configuration
Logs
This Acano Call Bridge is running in evaluation mode; it will provide reduced call capacity until licensed.
[download as text]
Date Time Logging level
2014-07-24 09:59:00.177 Info starting up; build version 1.2.0 (not activated)
2014-07-24 09:59:00.373 Info Restored config to /app/server_cfg1.xml
2014-07-24 09:59:00.382 Info Restored config to /app/server_cfg2.xml
2014-07-24 09:59:00.382 Info configuration now ready
2014-07-24 09:59:00.385 Info media fast path initialisation successful
2014-07-24 09:59:00.416 Info successful copied default resource data, size 8227

Collecting Diagnostic Information from a client

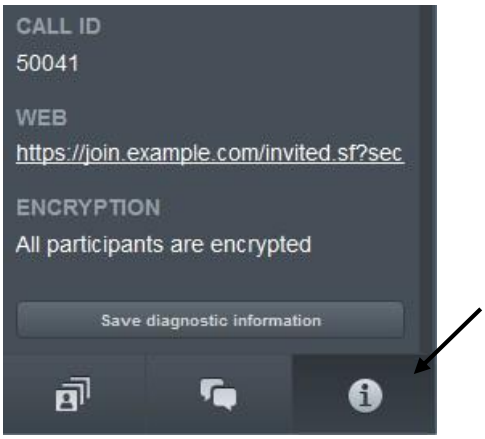
Obtaining a log file on my PC Client

When in an error state, open the right side panel:

- Using client v1.6.x, click on **Settings and Info** button, click **Diagnostics**, and enter a description of the problem, click **Save**. Select a directory in which to store the file and click **Save**



- Using client v1.3.x, if not in a call click the question mark, if in a call click the **i** button.
  - click **Save diagnostic information**, select a directory in which to store the file and click **Save**



Obtaining log and crash files on the PC Client

In the unlikely event that you encounter a PC Client crash, go to C:\Users\<your name>\AppData\Roaming\Acano and email support@acano.com the most recent files along with your full contact details. There may be more than one file with the same time stamp for each event: send them all.

Obtaining the log file for a iPad/iPhone client

To download the log/crash file, sync the iPad or iPhone with iTunes on your PC or Mac; the crash reports are stored at:

- On Windows 7: C:\Users\<user_name>\AppData\Roaming\Apple computer\Logs\CrashReporter/MobileDevice
- On Mac: ~/Library/Logs/CrashReporter/MobileDevice

Obtaining the log file for a iOS client

You can get some logs at ~/Library/Application Support/caches/com.acano.client/

Obtaining a log file on a WebRTC Client

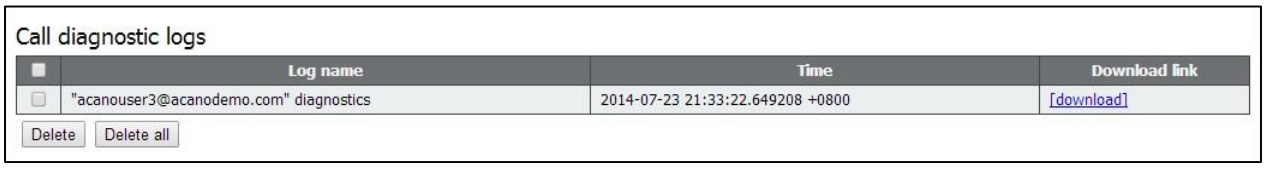
If you experience an issue during a call you can download a log file to send to Acano support as follows:

1. In the In-Call view, click .
2. Click .
3. Click **Show diagnostic information**.
4. Right-click and select Save As. Choose a directory in which to store the file and click **Save**.

By default the filename is of the form web_client_debug.html.

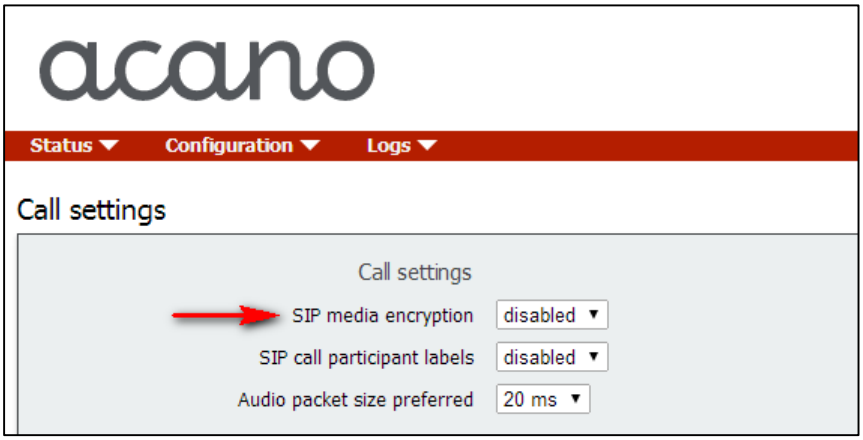
Collecting Diagnostic Information from the Acano server

When you generate a diagnostic log on an Acano client that is in a call, the Acano server also generates a diagnostic log automatically. Go to Acano server WebUI > Status > General, at bottom of the page, you could find the diagnostic log with time stamp. Download the one with correct time stamp.

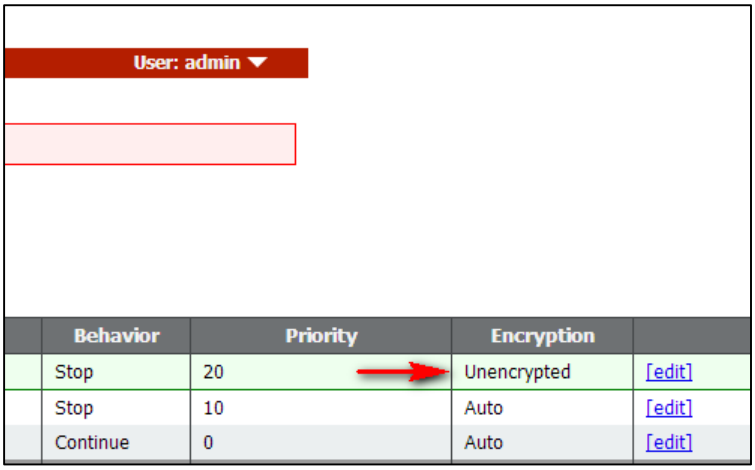


Collecting a SIP Trace

1. Make sure that the testing call will be unencrypted: sign in to the Web Admin Interface and go to **Configuration > Call settings**. Ensure that SIP Media Encryption is disabled.



2. Go to **Configuration > Outbound calls**, and ensure that the appropriate Outbound Calls rule has Encryption set to Unencrypted.



3. Flush the DNS cache on the Acano server or virtualized deployment:
   a. sign in to the MMP and execute the following commands in turn: `dns mmp flush` and `dns app flush`

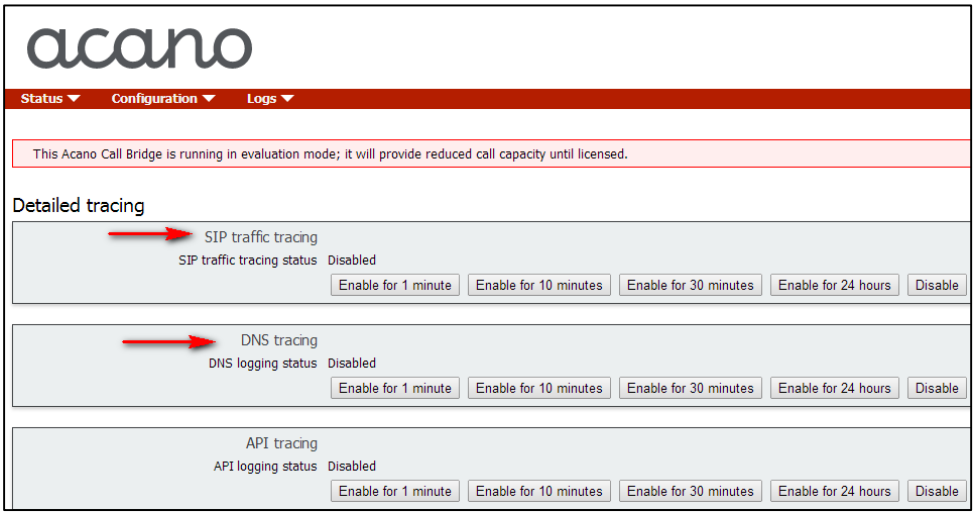
```
acano> dns ?
Configure DNS and DNSSEC

Usage:
    dns
    dns (mmp|app) add forwardzone <domain-name> <server ip>
    dns (mmp|app) del forwardzone <domain-name> <server ip>
    dns (mmp|app) add trustanchor <anchor>
    dns (mmp|app) del trustanchor <zonename>
    dns (mmp|app) lookup <A/AAAA/SRV> <hostname>
    dns (mmp|app) flush
    dns (mmp|app) add rr <DNS RR>
    dns (mmp|app) del rr <owner-name> <type>
acano> dns mmp flush
acano> dns app flush
acano>
```

b. On a virtualized deployment, sign in to the MMP and issue the command `dns flush`.

```
acano> dns ?
Usage:
    dns
    dns add forwardzone <domain-name> <server ip>
    dns del forwardzone <domain-name> <server ip>
    dns add trustanchor <anchor>
    dns del trustanchor <zonename>
    dns lookup (A|AAAA|SRV) <hostname>
    dns flush
    dns add rr <DNS RR>
    dns del rr <owner-name> <type>
acano> dns flush
acano>
```

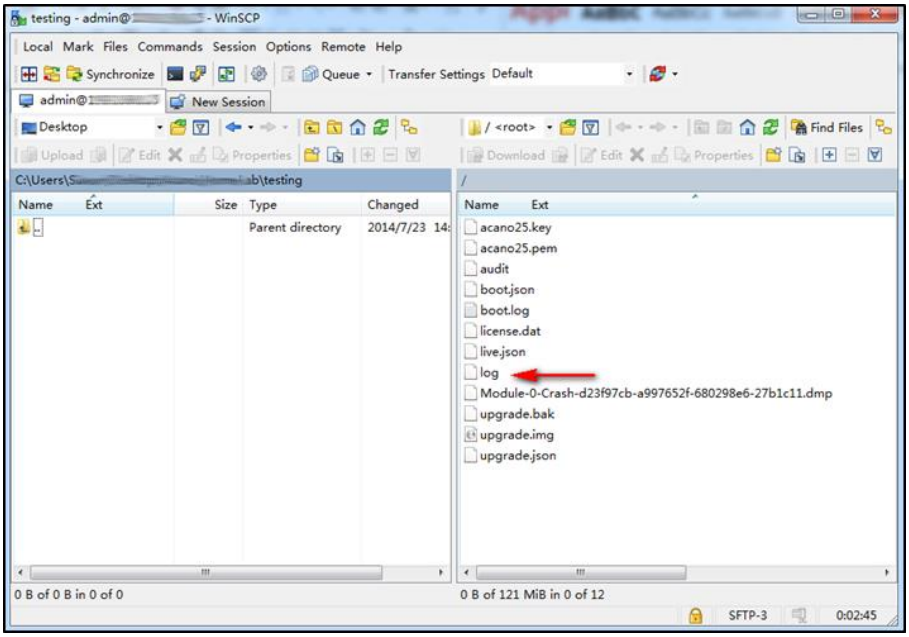
4. Enable SIP tracing and DNS tracing:
   a. In the Web Admin Interface go to **Logs > Detailed Tracing**.
   b. Enable SIP traffic tracing and DNS tracing. In most cases, Enabling for 30 minutes is enough.



5. Recreate issue by placing a single test call.
6. After the problem has reproduced disable tracing as soon as possible.
7. Download the traces.

a. Log in to the Acano server via WinSCP, using your Web Admin Interface login credentials.

b. In the root directory find the file called “log” and drag it to your local PC.



8. If possible, open the log in a text editor such as Notepad and delete irrelevant messages before sending the amended log to Acano support. Otherwise send the entire log to Acano support.

Appendix B Client Diagnostic Log Analysis

There is information in the diagnostic log that is useful when investigating some common issues such as media negotiation, packet loss, jitter and key frame requests (Fast Update Request).

This appendix provides some tips for finding this information in the log.

Media Sessions Info – Audio Session

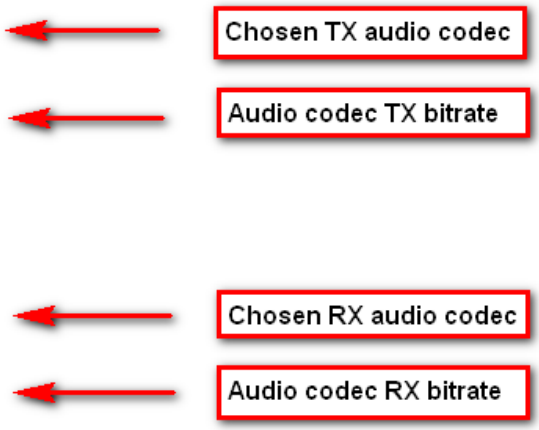
In the Media session info section (see below), look for the line starting Audio session.

```
2284  === Media sessions info ========================
2285  ==== Media session FE48560 ====
2286    Change object awaiting 0 responses
2287  -- Message counter --
2288  Session offers sent 2 response 2, pending 0
2289  Session answers received 2
2290  Selections sent 2 response 2, pending 0
2291  Selections received 1
2292  Advertisement sent 1 response 1, pending 0
2293  Configures sent 0 response 0, pending 0
2294  Configures received 0
2295  Streams advertised:
2296  Audio: 25703630-d8ef-4e88-bbe9-8d3129d3016f
2297  Main video: de6ac16d-ec14-4fc1-9297-a83afc6bc6b7
2298  Streams requested from far end:
2299      bdc7d5b4-5a73-419b-8d09-ead2ff8c00ac with multiplexId 2 @ 1010x688; aspect ratio 1010:688; layout 3
2300      4e1a1422-0984-45a4-9577-dfc3c304d472 with multiplexId 1
2301  Audio session: 25703630-d8ef-4e88-bbe9-8d3129d3016f
2302  Remote media: 209.9.228.135:3478; control: 209.9.228.135:3478
2303    215 seconds ago: media -:50139; control: -:50391
2304    215 seconds ago: media 209.9.228.135:3478; control: 209.9.228.135:3478
2305    215 seconds ago: media 209.9.228.135:3478; control: 209.9.228.135:3478
2306  Estimated bandwidth: Unknown
2307  Interfaces:
2308    10.86.8.11 media 51164 control 51165
2309    ::1 media 51166 control 51167
2310    127.0.0.1 media 51168 control 51169
2311    2001::9d38:6ab8:3890:efe:8380:bbfb media 51170 control 51171
2312    fe80::3890:efe:8380:bbfb media 51172 control 51173
```

There you find the remote and local media interfaces including the IP address and port used in each case.

Further down in this same audio session you find the information about chosen codec and bitrate for audio (see below).

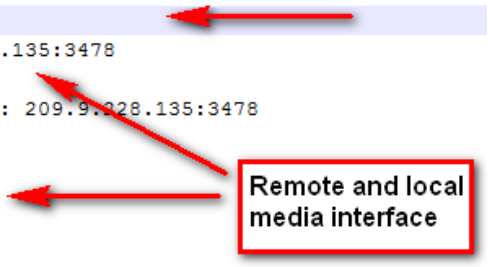
```
2498  Ice complete: 1
2499  DTLS not started media complete 1 control complete 1
2500      Tx statistics:
2501          Multiplex ID        100
2502          SSRC        fa4104ef
2503          Payload type        98
2504          Codec       opus
2505          Clock rate      48000
2506          Packets Total   10569
2507          Bitrate     67.9 Kbps
2508          Round trip time     215ms
2509          Encryption      on
2510      Rx statistics:
2511          Multiplex ID        1
2512          SSRC        1cb7b15f
2513          Payload type        98
2514          Codec       opus
2515          Clock rate      48000
2516          Packets Total   10672
2517          Bitrate     77.5 Kbps
2518          Encryption      on
```



Media Sessions Info – Video session

Further down is the video session section.

```
2519  Video session: de6ac16d-ec14-4fc1-9297-a83afc6bc6b7
2520  Remote media: 209.9.228.135:3478; control: 209.9.228.135:3478
2521    215 seconds ago: media -:50389; control: -:50313
2522    215 seconds ago: media 209.9.228.135:3478; control: 209.9.228.135:3478
2523  Estimated bandwidth: 18454873 over 1 tx streams
2524  Interfaces:
2525    10.86.8.11 media 51174 control 51175
2526    ::1 media 51176 control 51177
2527    127.0.0.1 media 51178 control 51179
2528    2001::9d38:6ab8:3890:efe:8380:bbfb media 51180 control 51181
2529    fe80::3890:efe:8380:bbfb media 51182 control 51183
```



Here you find the remote and local media interfaces including IP address and port for each interface.

Further down in this same video session section, you find information about the chosen codec, bitrate for audio and keyframe requests (see below). Packet loss can generate keyframe requests.

```
2715  Ice complete: 1
2716  DTLS not started media complete 1 control complete 1
2717      Tx statistics:
2718          Multiplex ID        200
2719          SSRC        e7ee89ea
2720          Payload type        96
2721          Codec       H264
2722          Clock rate      90000
2723          Packets Total   17619
2724              Dropped 2   Curr  0.0 pct
2725          Bitrate     720.4 Kbps
2726          Round trip time     217ms
2727          Encryption      on
2728          Resolution      768x448
2729          Framerate       28.9 fps
2730          Keyframes   Requests    6
2731          Keyframes       0
2732          Configured bitrate  1024.0 Kbps
2733          Flow control bitrate    1024.0 Kbps
2734      Rx statistics:
2735          Multiplex ID        2
2736          SSRC        5501d8bc
2737          Payload type        96
2738          Codec       H264
2739          Clock rate      90000
2740          Packets Total   18526
2741              FEC 9
2742              Dropped 72  Curr  0.0 pct
2743          Bitrate     721.6 Kbps
2744          Encryption      on
2745          Resolution      768x448
2746          Framerate       25.3 fps
2747          Keyframes   Requests    363
2748          Keyframes       59
2749          Configured bitrate  0.0 Kbps
2750          Flow control bitrate    0.0 Kbps
```

Chosen TX video codec

0.0% packet loss TX
Video codec TX bitrate

keyframe reqeusts TX

Chosen RX video codec

0.0% packet loss RX
Video codec RX bitrate

keyframe requests RX

Media Diagnostics

Information in Media Diagnostics section can be useful: in the following example, you see issues such as audio echo, low available CPU and packet loss.

```
3166  ======== Media Diagnostics =========
3167
3168  1 848 1 0 0 audio echo
3169
3170
```

```
3473  ======== Media Diagnostics =========
3474
3475  2 468 40 0 1005 low available CPU
3476
3477
```

```
1099  ======== Media Diagnostics =========
1100
1101  1 448 1 2 0 audio echo
1102  34 2790 50 1 24 packet loss
1103  38 308 50 1 35 packet loss
1104
```

Callbridge selection

In XMPP info section, you can find the callbridge homing your client after callbridge selection procedure.

```
813  === XMPP info ==================================
814  Connected to 200.100.1.79
815  Choosing from 3 servers after 500ms
816   Server ukcore1.example.com (score 3710886328):
817    RTT direct: Unreachable
818    RTT via 200.100.1.80: 2ms local + 0ms remote
819    RTT via 200.100.1.25: 3ms local + 1ms remote
820    RTT via 200.100.1.77: 2ms local + 1ms remote
821    RTT via 200.100.1.79: 2ms local + 0ms remote
822   Server ukcore2.example.com (score 3251570200):
823    RTT direct: Unreachable
824    RTT via 200.100.1.80: 2ms local + 0ms remote
825    RTT via 200.100.1.25: 3ms local + 0ms remote
826    RTT via 200.100.1.77: 2ms local + 1ms remote
827    RTT via 200.100.1.79: 2ms local + 0ms remote
828   Server uscore1.example.com (score 1782068193):
829    RTT direct: Unreachable
830    RTT via 200.100.1.80: 2ms local + 0ms remote
831    RTT via 200.100.1.25: 3ms local + 0ms re
832    RTT via 200.100.1.77: 2ms local + 1ms re
833    RTT via 200.100.1.79: 2ms local + 0ms remote
834   Chosen best server ukcore1.example.com with RTT 2
835  === End XMPP info ==============================
```

Homed by ukcore1

If you see it is chosen by request of server, it means this specific user has already homed by the callbridge and the homing session timer has not got expired. So no callbridge selection procedure involved.

```
815  === XMPP info ==================================
816  Connected to 200.100.1.79
817  Choosing from 3 servers after 0ms
818   Server ukcore1.example.com chosen by request of server
819  === End XMPP info ==============================
```

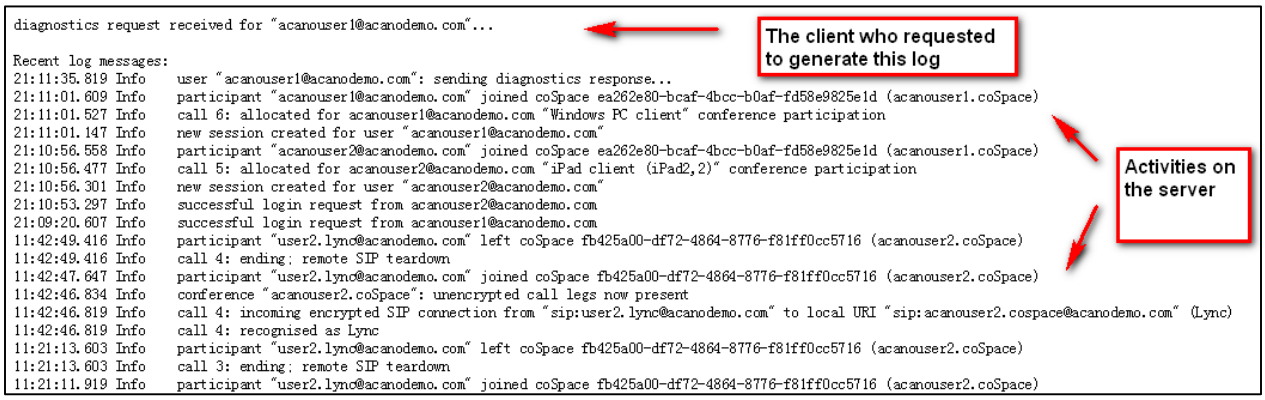
Homed by ukcore1

Appendix C Server Diagnostic Log Analysis

There is information in the diagnostic log that is useful when investigating some common issues such as media negotiation, packet loss, jitter and key frame requests (Fast Update Request).

This appendix provides some tips for finding this information in the log.

Recent Log Messages


diagnostics request received for "acanouser1@acanodemo.com"...
The client who requested to generate this log
Recent log messages:
21:11:35.819 Info user "acanouser1@acanodemo.com": sending diagnostics response...
21:11:01.609 Info participant "acanouser1@acanodemo.com" joined coSpace ea262e80-bcaf-4bcc-b0af-fd58e9825e1d (acanouser1.coSpace)
21:11:01.527 Info call 6: allocated for acanouser1@acanodemo.com "Windows PC client" conference participation
21:11:01.147 Info new session created for user "acanouser1@acanodemo.com"
21:10:56.558 Info participant "acanouser2@acanodemo.com" joined coSpace ea262e80-bcaf-4bcc-b0af-fd58e9825e1d (acanouser1.coSpace)
21:10:56.477 Info call 5: allocated for acanouser2@acanodemo.com "iPad client (iPad2,2)" conference participation
21:10:56.301 Info new session created for user "acanouser2@acanodemo.com"
21:10:53.297 Info successful login request from acanouser2@acanodemo.com
21:09:20.607 Info successful login request from acanouser1@acanodemo.com
11:42:49.416 Info participant "user2.lync@acanodemo.com" left coSpace fb425a00-df72-4864-8776-f81ff0cc5716 (acanouser2.coSpace)
11:42:49.416 Info call 4: ending: remote SIP teardown
11:42:47.647 Info participant "user2.lync@acanodemo.com" joined coSpace fb425a00-df72-4864-8776-f81ff0cc5716 (acanouser2.coSpace)
11:42:46.834 Info conference "acanouser2.coSpace": unencrypted call legs now present
11:42:46.819 Info call 4: incoming encrypted SIP connection from "sip:user2.lync@acanodemo.com" to local URI "sip:acanouser2.cospace@acanodemo.com" (Lync)
11:42:46.819 Info call 4: recognised as Lync
11:21:13.603 Info participant "user2.lync@acanodemo.com" left coSpace fb425a00-df72-4864-8776-f81ff0cc5716 (acanouser2.coSpace)
11:21:13.603 Info call 3: ending: remote SIP teardown
11:21:11.919 Info participant "user2.lync@acanodemo.com" joined coSpace fb425a00-df72-4864-8776-f81ff0cc5716 (acanouser2.coSpace)
Activities on the server

Finding the Corresponding Client Log

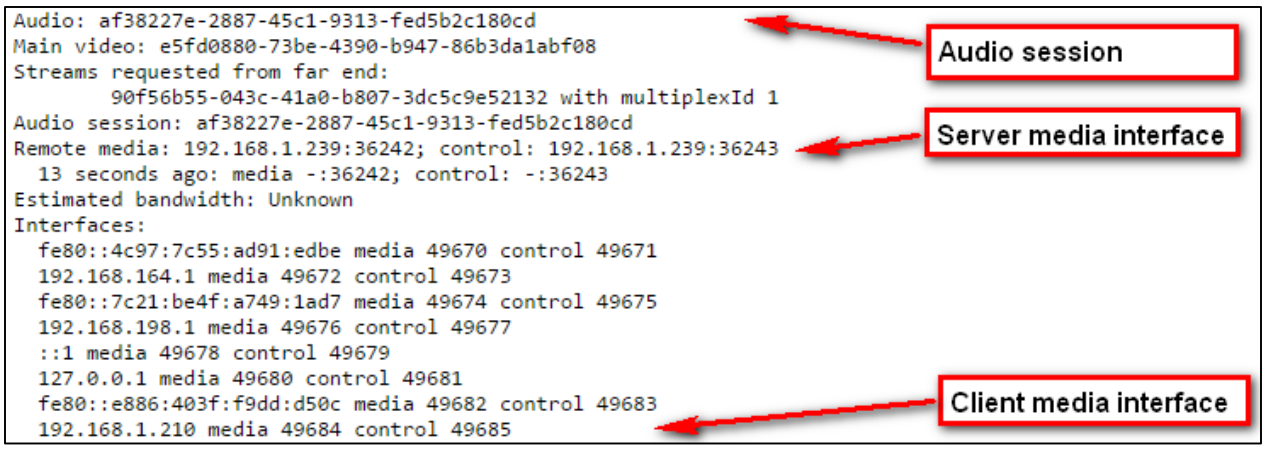
Because the Core server log is generated when a client log is created, there is a pair of logs to help troubleshoot an issue from both “ends” of a call.

To identify which of the server logs matches a specific client log, the same information is displayed in both (see the example below).

```
client diagnostics:
Acano PC Client version 1.1.2.3
== User interface info ================
Video display D9D898
  Video stream 0
Video display 63681F0
  Call: DFECE8
  Video stream D6E05C
== End user interface info ============
```

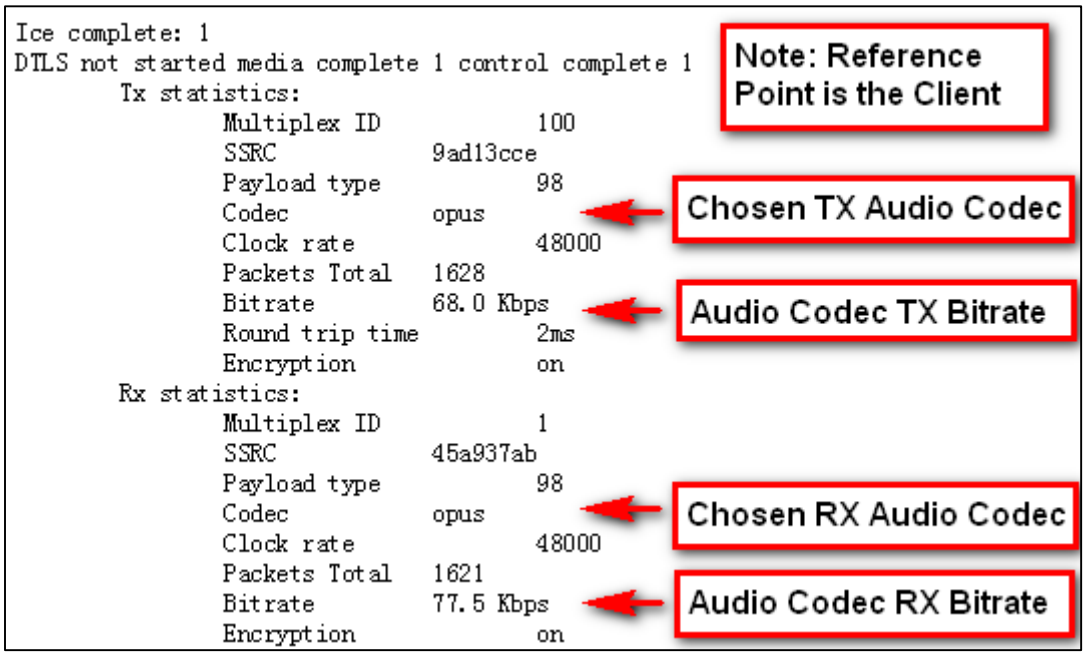
Audio Media Session

Both of the following screenshots are taken from a server log. The first shows the media interface chosen on server and on client.


Audio: af38227e-2887-45c1-9313-fed5b2c180cd
Main video: e5fd0880-73be-4390-b947-86b3da1abf08
Streams requested from far end:
90f56b55-043c-41a0-b807-3dc5c9e52132 with multiplexId 1
Audio session: af38227e-2887-45c1-9313-fed5b2c180cd
Remote media: 192.168.1.239:36242; control: 192.168.1.239:36243
13 seconds ago: media -:36242; control: -:36243
Estimated bandwidth: Unknown
Interfaces:
fe80::4c97:7c55:ad91:edbe media 49670 control 49671
192.168.164.1 media 49672 control 49673
fe80::7c21:be4f:a749:1ad7 media 49674 control 49675
192.168.198.1 media 49676 control 49677
::1 media 49678 control 49679
127.0.0.1 media 49680 control 49681
fe80::e886:403f:f9dd:d50c media 49682 control 49683
192.168.1.210 media 49684 control 49685
Audio session
Server media interface
Client media interface

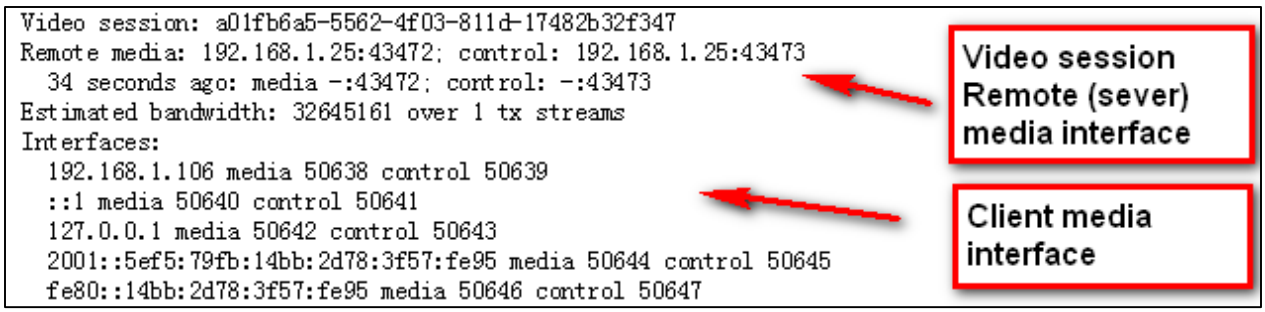
The second screen shot is about codec and bitrate used in the call. The codec is negotiated during call set up process.

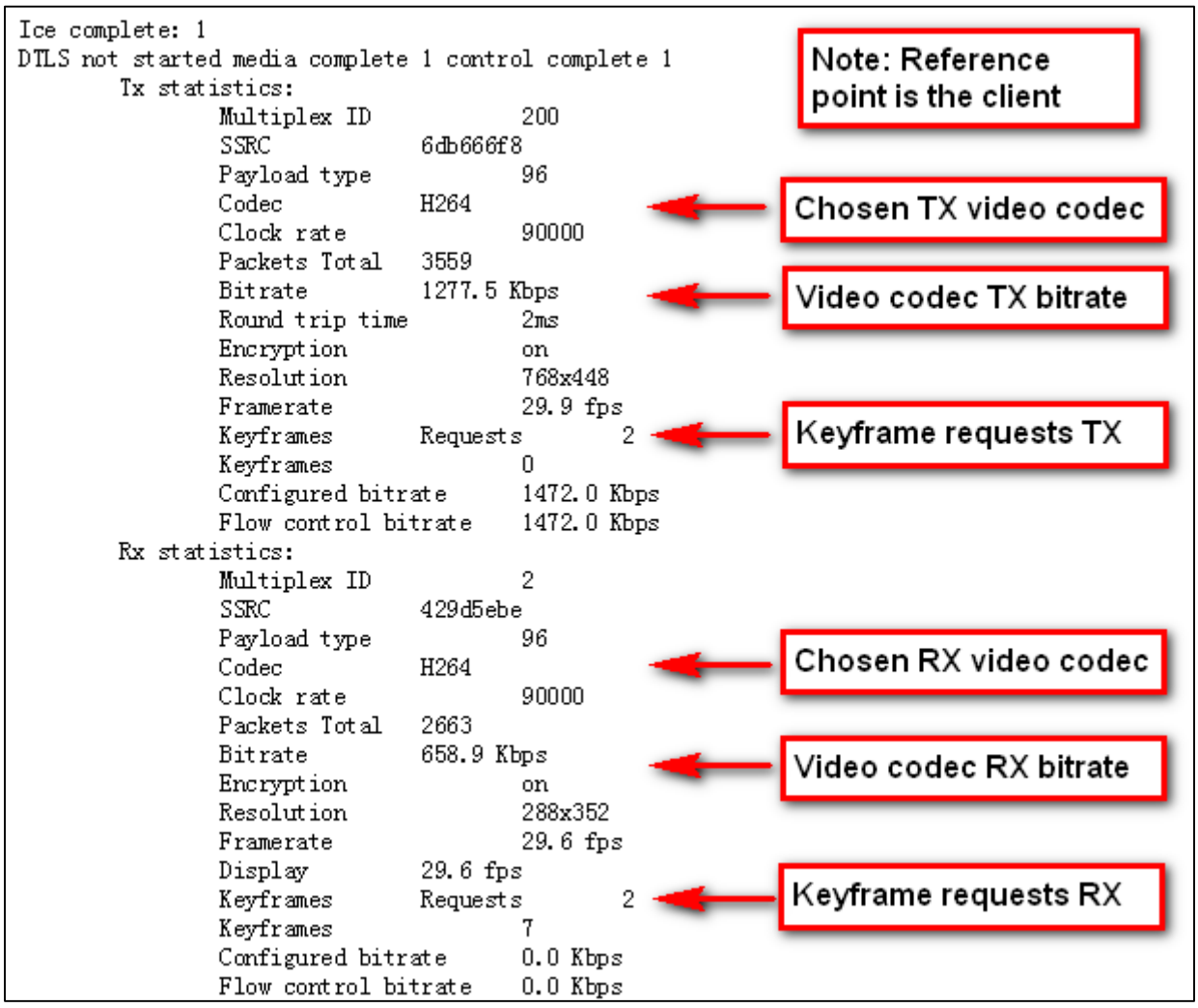
Note: Even though this is the server log, TX is the bit rate received by the server—the reference point is the client not the server.



Video Media Session

These examples are from the server log.

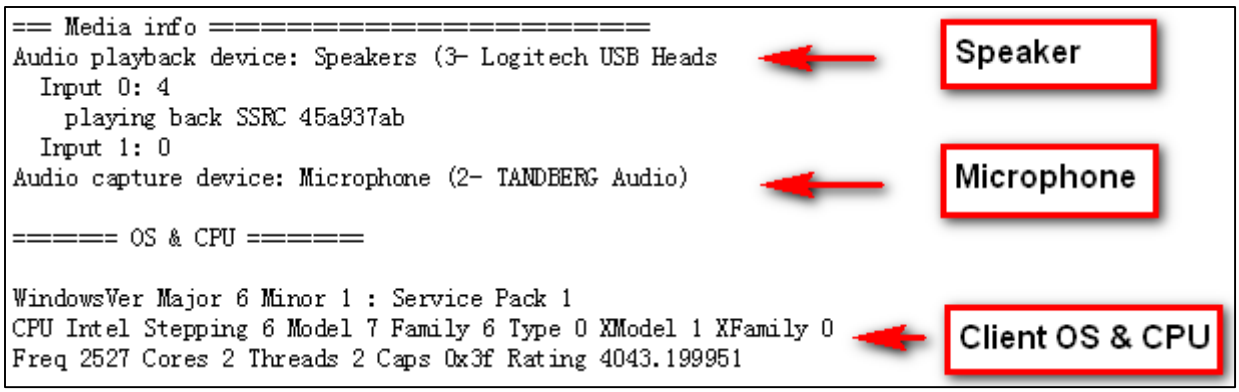

Video session: a01fb6a5-5562-4f03-811d-17482b32f347
Remote media: 192.168.1.25:43472; control: 192.168.1.25:43473
34 seconds ago: media -:43472; control: -:43473
Estimated bandwidth: 32645161 over 1 tx streams
Interfaces:
192.168.1.106 media 50638 control 50639
::1 media 50640 control 50641
127.0.0.1 media 50642 control 50643
2001::5ef5:79fb:14bb:2d78:3f57:fe95 media 50644 control 50645
fe80::14bb:2d78:3f57:fe95 media 50646 control 50647
Video session Remote (sever) media interface
Client media interface



Note: Normally there are only 1 or 2 keyframe requests (typically at the beginning of the call); therefore if there are several of them this can indicate a problem. Generally, a keyframe request is sent when a device (sever or client) realizes that it is receiving packet loss.

Client Device Information

The following screenshot is from a server log.


== Media info ======================
Audio playback device: Speakers (3- Logitech USB Heads
Input 0: 4
playing back SSRC 45a937ab
Input 1: 0
Audio capture device: Microphone (2- TANDBERG Audio)
====== OS & CPU ======
WindowsVer Major 6 Minor 1 : Service Pack 1
CPU Intel Stepping 6 Model 7 Family 6 Type 0 XModel 1 XFamily 0
Freq 2527 Cores 2 Threads 2 Caps 0x3f Rating 4043.199951
Speaker
Microphone
Client OS & CPU

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